This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

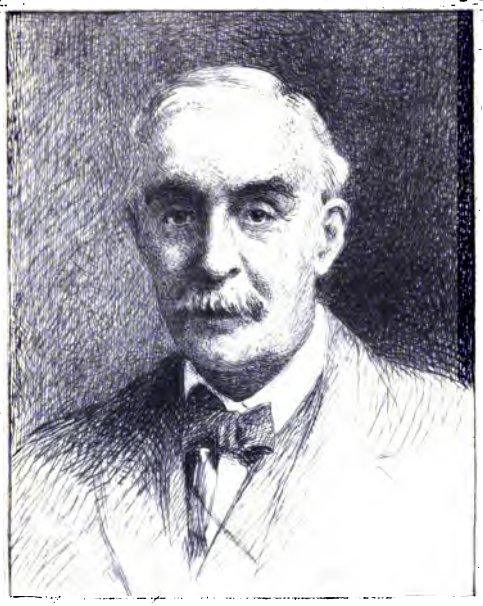
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

A 813,588



FROM THE LIBRARY OF
ROBERT MARK WENLEY
PROFESSOR OF PHILOSOPHY
1896 — 1929
GIFT OF HIS CHILDREN
TO THE UNIVERSITY OF MICHIGAN

MHWickner del et Sc
1938

Grad. R. R.
BD
215
.L79

R. M. Wenley
from A.H.L.

Dec. 1907.

THE WILL TO DOUBT

ὁ δὲ ἀνεξέταστος βίος
οὐ βιωτὸς ἀνθρώπῳ

THE ETHICAL LIBRARY

EDITED BY J. H. MUIRHEAD, M.A. (Oxon.), LL.D. (Glas.)
Professor of Mental and Moral Philosophy in the University of Birmingham

The Civilization of Christendom, and other Studies.
By BERNARD BOSANQUET, M.A. (Oxon.), LL.D. (Glas.). 4*s.* 6*d.*

Short Studies in Character.
By SOPHIE BRYANT, D.Sc. (Lond.). 4*s.* 6*d.*

The Teaching of Morality.
By SOPHIE BRYANT, D.Sc. (Lond.). 3*s.*

Studies in Political and Social Ethics.
By PROFESSOR D. G. RITCHIE. 4*s.* 6*d.*

An Ethical Sunday School.
By W. L. SHELDON. 3*s.*

Practical Ethics.
By PROFESSOR H. SIDGWICK. 4*s.* 6*d.*

Social Rights and Duties.
By SIR LESLIE STEPHEN. 2 vols. 9*s.*

Lectures on Humanism.
By PROFESSOR J. S. MACKENZIE, M.A. (Glas.), Litt. D. (Cantab.). 4*s.* 6*d.*

The Will to Doubt.
By PROFESSOR ALFRED H. LLOYD. 4*s.* 6*d.*

LONDON: SWAN SONNENSCHEIN & CO., LIM.
NEW YORK: THE MACMILLAN CO.

Other books by Professor Lloyd are:—

Citizenship and Salvation; or, Greek and Jew. A Study in the Philosophy of History. Boston, 1897.

Dynamic Idealism. An Elementary Course in the Metaphysics of Psychology. Chicago, 1898.

Philosophy of History. An Introduction to the Philosophical Study of Politics. Ann Arbor, 1899.

The Ethical Library

THE WILL TO DOUBT

AN ESSAY IN PHILOSOPHY FOR THE GENERAL THINKER

BY
ALFRED H. LLOYD

Truth hath neither visible form nor body; it is without habitation or name; like the Son of Man it hath not where to lay its head.

LONDON
SWAN SONNENSCHEIN & CO., LIM.
25 HIGH STREET, BLOOMSBURY, W.C.
1907

GRR3
4-26-38
05-12-38 JA

PREFACE.

THE chapters that follow comprise what might be called an introduction to philosophy, but such a description of them would probably be misleading, for they are addressed quite as much to the general reader, or rather to the general thinker, as to the prospective student of technical philosophy. They are the attempt of a University teacher of philosophy to meet what is a real emergency of the day, namely, the doubt that is appearing in so many departments of life, that is affecting so many people, and that is fraught with so many dangers, and in attempting this they would also at least help to bridge the chasm between academic sophistication and practical life, self-consciousness and positive activity. With peculiar truth at the present time the University can justify itself only by serving real life, and it can serve real life, not merely by bringing its pure science down to, or up to, the health and the industrial pursuits of the people, but also by explaining, which is even to say by applying, as science is "applied," or by animating the general scepticism of the time.

That this scepticism is often charged to the peculiar

training of the University hardly needs to be said, but except for its making such an undertaking as the present essay only the more appropriate the charge itself is strangely humorous. One might also accuse the University of making atoms and germs, or, by its magic theories, of generating electricity or disease. Scepticism is a world-wide, life-wide fact; even like heat or electricity, it is a natural force or agent—unless forsooth one must exclude all the attitudes of mind from what in the fullest and deepest sense is natural; scepticism, in short, is a real phase of whatever is real, and its explanation is an academic responsibility. Its explanation, however, like the explanation of everything real or natural, can be complete only when, as already suggested here, its application and animation have been achieved, or when it has been shown to be properly and effectively an object of will. So, just as we have the various applied sciences, in this essay there is offered an applied philosophy of doubt, a philosophy that would show doubt to have a real part in effective action, and that with the showing would make both the doubting and the acting so much the more effective.

But it may be said that effective acting depends, not on doubt, but rather on belief, on confidence or "credit." This will prove to be true, excepting in what it denies. To be commonplace, to write down here and now what is at once the truism and the paradox of this book, a vital, practical belief must always live by doubting. Was it Schopenhauer who

declared that man walks only by saving himself at every step from a fall? The meaning of this book is much the same, although no pessimism is either intended or necessarily implied in such a declaration. Doubt is no mere negative of belief; rather it is a very vital part of belief, it has a place in the believer's experience and volition; the doubters in society, be they trained at the University or not, and those practical creatures in society who have kept the faith, who believe and who do, are naturally and deeply in sympathy. And this essay seeks to deepen their natural sympathy.

Here, then, is my simple thesis. Doubt is essential to real belief. Perhaps this means that all vital problems are bound in a real life to be perennial, and certainly it cannot mean that in its support I may be expected by my readers to give a solution of every special problem that might be raised, an answer to every question about knowledge or morality, about religion or politics or industry, that might be asked. Problems and questions, of course the natural children, not of doubt, but of doubt and belief, may be as worthy and as practical as solutions. Some of them may be even better put than answered. But be this as it may, the present essay must be taken for what it is, not for something else. It is, then, for reasons not less practical than theoretical, an attempt to face and, so far as may be, to solve the very general problem of doubt itself, or say simply—if this be simple—the problem of whatever in general is problematic; and,

this done, to suggest what may be the right attitude for doubters and believers towards each other and towards life and the world which is life's natural sphere; emphatically it is not the announcement of a programme for life in any of its departments.

The substance of chapters I., II., III., IV., and V. in small parts, and VI. and VIII. was given during the summer of 1903 in lectures before the Glenmore School of the Culture Sciences at Hurricane in the Adirondacks, and except for some revision chapters V. and VII. have already been published—*Science*, July 5, 1902, and the *Journal of Philosophy, Psychology and Scientific Methods*, June, 1905.

To Professor Muirhead, the Editor of the Ethical Library, I wish here to express my hearty appreciation of his interest and assistance in the final preparation of this volume for publication.

A. H. L.

THE UNIVERSITY OF MICHIGAN,
ANN ARBOR, MICHIGAN, U.S.A.

CONTENTS.

CHAPTER		PAGE
I.	Introduction	1
II.	The Confession of Doubt	5
III.	Difficulties in the Ordinary View of Things	29
IV.	The View of Science: its Rise and Consequent Character	56
V.	The View of Science: its Peculiar Limitations	74
	I. Science would be Objective	75
	II. Science would be Specialistic	86
	III. Science would be Agnostic	106
VI.	Possible Value in these Essential Defects of Experience	131
VII.	The Personal and the Social, the Vital and the Formal in Experience	154
VIII.	An Early Modern Doubter	172
IX.	The Doubter's World	193
	I. Reality, without Finality, in all Things	193
	II. Perfect Sympathy between the Spiritual and the Material	203
	III. A Genuine Individuality	224
	IV. Immortality	234
X.	Doubt and Belief	248
	Index	281

THE WILL TO DOUBT.

I.

INTRODUCTION.

WITHOUT undue sensationalism it may be said that this is an age of doubt. Wherever one looks in journeying through the different departments of life one sees doubt. And one sees, too, some of the blight which doubt produces, although the blight is by no means all that one sees. There is heat everywhere in the physical world, but not necessarily only arson or even destructive fire. Morals, however, social life, industry, politics, religion, have suffered somewhat—and many would insist very seriously—from the prevailing doubt. Moreover, if the outward view shows doubt everywhere, the inward view is at least not more reassuring. Who can examine his own consciousness without finding doubt at work there? We would often hide it from others, not to say from ourselves, but it is there, and we all know it to be there. Other times may also have been times of doubt, but our day, as the time to which we certainly owe our first and chief

duty, is very conspicuously and very seriously a time of doubt.

Now there are some, and they are many, who would decry the discussion of such a thing as doubt, for they see only danger ahead. Doubt they compare with death or disease, and to dwell upon any of these is idle, unnatural, morbid. Why not let such things alone, and look only to what is pleasant, to what is good and true and beautiful? Then, too, doubt, the confession of doubt, is the royal entrance to philosophy and the risk of an entanglement with philosophy, which seems to them the source of much that is harmful, the essence of all that is impractical, is altogether too great. Doubt for them is even less to be played with than fire, with which already it has been compared here. Again, as others in matters political and industrial, so they in matters intellectual and spiritual resent anything that appears likely in any way to disturb the standing credit of the country. To doubt is just to join the opposition, and the opposition is made up of heretics and agents generally of mere destruction. To treat doubt as real and positively significant, as having any true worth in human experience, as being even a proper object of will, is to stop permanently, not the wheels of commerce and industry, but the wheels of the present life in all its phases. In a word, perhaps one of the words of the hour, Christian Science has not wished to be more inhospitable to the reality of disease than have these believers to the reality and usefulness of doubt.

Yet all who feel in this way are short-sighted. Their contentions, like those of their cousins, perhaps

their country cousins, the Christian Scientists, may have worth for being corrective, but at very best they are only one-sided. In a fable, never in real life, a man might get the smell of burning wood in his house and refuse to recognize the danger because of the inevitable delay to his business which the alarm of fire would involve; but doubt is not less real nor less dangerous, nor even less capable, when under control, of useful applications. Any danger, too, squarely faced is at least half met. Why, then, be so impracticable, so like characters in fables, as to overlook or turn one's back upon the doubt of the day, refusing it a place and a part in real life? The negative things of life can be so only relatively. Death itself cannot possibly be absolute, and doubt, not unlike death, indeed perhaps only one of death's messengers, must be even a gift, or an agent, of the gods. Some things, dangerous when hidden, are wonderfully serviceable, when recognized and controlled. Sometimes men really have entertained angels unawares.

And so throughout these chapters, although some may think me and those who follow me morbid, and although we may have to enter the dangerous parlour of philosophy, the doubt of our time is to be squarely and fairly faced. In all candour, we are from the start to be confessed parties to it, hiding nothing intentionally, and at the same time trying always to give nothing undue emphasis. The doubt that all seem to know, that many really feel without perhaps clearly confessing, and that some confess or even actually boast, we shall face and examine closely,

trying as we can to find its true meaning and real worth. In short, the confession of doubt, of our doubt, and the fruits of confession are the burden of these chapters.

II.

THE CONFESSION OF DOUBT.

OUR confession must, of course, be thorough-going, and can be made so only through a complete statement of every possible reason that experience affords for the attitude of doubt. To the end, therefore, of such a statement we shall consider in this chapter certain general and easily recognized facts about doubt itself, while in chapters that follow we shall continue the confession by examining, first, our customary or "common-sense" view of things, and then the view of science, and having brought together in each case numerous incongruities, or contradictions, which ordinarily are at best only casually noticed or timorously overlooked, we shall find ourselves facing in a peculiarly telling way, not only certain strong reasons for doubt, but also some of the real issues that doubt raises. As no issue, moreover, can be more central or crucial than the meaning of the contradictions found to pervade our views of things, before completing our confession we shall allow ourselves some reflections, that should prove useful to us in the end, upon the possible worth of contradiction in human experience; for even to casual thinking contradiction, although good ground for scepticism, suggests some positive advantage and opportunity; the advantage of breadth,

for example, of freedom from special form, or the opportunity of personal spontaneity and initiative as against the restraints of formal consistency, of class, and of institution; and if these things, among others, can be associated with our case for doubt, our reflections will certainly not have been in vain. Then we shall close our confession by seeking the companionship of a great doubter of modern times, and by learning what we can from him of doubt itself and of the doubter's natural world. And finally, as a result of all our own efforts, supplemented by his help, we shall be able to reap some of the fruits for life and thought that a confession so fully made may fairly claim.

From start to finish, moreover, of this study of doubt we have to remember that there can be no important difference between what is possible and what is real. Thus anything whatsoever that can possibly be doubted is really doubtful. Also, if anybody is amazed to hear mention of facts about doubt, as if doubt should not somehow submit to its own nostrum, let him merely reflect that, strangely enough, nothing is quite so indubitable as doubt, nothing so convincing as the reasons for doubt. Let me not be too subtle, but to doubt doubt is only to affirm it, and somehow—whether for good or ill need not now be said—all the negative things of life possess a peculiar certainty, and are all most easily proved. A great Frenchman once put the case quite plainly when he said, after canvassing very carefully the whole field of his consciousness, that his doubts were the only things there, the only things he could be quite certain about, and these were so very real that they left him abso-

lutely nothing but belief in himself, in his all-doubting and ever-doubting self, to rest upon. His was surely a sweeping confession, and his residuum of belief may not at first sight seem very promising or very substantial, but quickly, I think, we shall find ourselves in agreement with him, at least as to the reality and the wide scope of our doubting, and it is also a possibility well worth foreseeing that we may even find his belief in the reality of an ever-doubting and all-doubting self a rock for our own saving.

So, to turn now to those general and easily recognized facts, which were to be the special interest of the present chapter, in the first place: *We are all universal doubters.* We are all universal doubters in the sense that every one of us doubts something, and there is nothing which some of us have not doubted. Who would be so rash as to say that what a fellow-being had questioned might not be questionable to himself also, or that, if anything in his own experience had ever been subject to question, all the other things might not also be subject to question? But the merely dubitable is the already doubtful. In this sense, therefore, not so abstruse and formally logical as it may appear, we are all universal doubters.

Our life is ever cherishing what we are pleased to call its verities, some in religion and morals, some in politics, some in mathematics and science, some in the more general relations to nature, but what elusive things these verities are! How shallow, or how hollow all of them are, or at one time or another may become. To take a rather minute case, such as it is

always the philosopher's license to make use of, a case that is, however, quite typical in experience; here is a word—any word you like—that has been spoken and written by you for years. Always before it has been spelt correctly and clearly understood, but to-day how unreal it seems. Are those the right letters, and are they correctly placed? Is that the true meaning? What has happened, too, to give rise to these unusual questions? Well, who can say? And who has not substantially asked every one of them, not merely with reference to some long-familiar word, but also with reference to much larger things in life? Self and society, love and friendship, mind and matter, nature and God have again and again been subjected to essentially the same questioning. The verities of life, all the way from simple words used every day to the great things of our moral and spiritual being, have lost, sometimes slowly, sometimes very suddenly, the reality with which we have supposed them endowed, and although we may still bravely believe we find ourselves crying out passionately for help in our unbelief. There certainly are the verities; not one of them can possibly fall to the ground; yet these very verities are never quite in our experience.

Still the world has its thoroughly confident people. Every one of us has met some of those estimable beings to whom doubt seems wholly foreign, people who assert with trembling voice and sacred vow that their convictions, political perhaps or religious, are unassailable, and that they must hold them to the grave. But, whatever may be said of political convictions, religious convictions have often been re-

garded as a contradiction of terms. How can one be sure and religious at the same time? Moreover, positive people under any standard are notoriously as fearful as they are dogmatic. Fear is often, if not always, the chief motive of dogmatism, and fear is hardly the most natural companion of genuine confidence. The part which the emotion of fear has had, both in the personal life and in the doctrine of the dogmatic among men, would make a most instructive study.

If, then, dogmatic people are slaves to their fears, while more thoughtful people, as has not needed to be said, seem to get no reward from their self-consciousness but the uncertain reward of their doubts, then only such as live quietly, asserting nothing, depending on nothing, and even assuming nothing, but simply taking what comes, are left to represent genuine belief. Yet how many such are there? A few may seem to approach the ideal, if ideal it be, but the class itself in realization must be said to be a hypothetical one, and few, if any, of us could ever really envy or strive to imitate its supposed manner of living; for, in spite of all the dangers and all the doubts and fears, only the constantly examined life can ever really lure us. Doubt, besides being a general condition of life, seems to be also incident to what gives life worth.

But, furthermore, not only are we all universal doubters; the case for doubt in the world is, if possible, even stronger; for also—and this is the second general fact: *Doubt is a phase, nay, a vital condition of all consciousness.* To be a conscious creature is to be a doubting creature.

In so many ways psychology is teaching us to-day with renewed emphasis that we are conscious of nothing as it is, and that more or less clearly we all know our shortcoming in this regard; or again, with still more directness and emphasis, that for us there is no such thing as a state of consciousness which does not indicate tension, or unstable equilibrium, that is to say uncertainty, in our activity. Nor have we need of the testimony of science to these facts, since common personal experience is well aware of them. In small things and in great consciousness transforms or refracts. In small things and in great consciousness marks a moment of poise between an impulse to do something, and more or less distinctly recognized conditions or relations that would put restraint upon the doing of it. Even the law of relativity, a psychological law only in its definite formulation, in its idea a simple fact of everyday experience, true for all conscious states from the crudest perceptions of the organs of sense to the most highly developed ideas of critical reflection, by binding as it does all the details of actual or possible experience into a whole, every part of which acts upon the other parts, points very directly to this fact of poise and instability, besides indicating also that knowledge never can be literally or objectively exact, and that at least with some clearness every knower must know it cannot. How can there ever be even a single stable or a single finally accurate element in the consciousness of a creature whose experience, in the first place, can comprise only related, interdependent parts, and whose nature, in the second place, is an essentially mobile and active

one? Moreover, as just one other way of suggesting the inexactness and uncertainty of consciousness and the balancing, tentative nature of all conscious life, we always think, and think properly, of conscious creatures as having will, as doing what they do purposely or from design. The new psychology, however, to which we naturally turn, and which again has only formulated what we can recognize from everyday experience, declares that the purpose in conscious activity is not a developed, but an always developing one. Purposive action is action that never finally knows, but is ever finding out its real intent, purpose being identical with the progressively discovered meaning of action. A volitionally, purposively active being is always a seeker as well as a doer. Indeed, any doing would itself be empty, or idle, if it were not a seeking, and so if it were not subject to conditions of some uncertainty. In so many ways, then, through the necessary inexactness of consciousness, through the unstable equilibrium of all conscious activity, through the law and fact of relativity, and through the tentative and provisional nature which must always belong to purpose, we see how doubt must be a phase or condition of all consciousness.

Illustrations are abundant. Thus, once more to take a somewhat minute case, which is really more significant for being minute, with regard to conscious activity being in a state of tension, visual sensations always involve muscular sensations, and these are incident not only to expressed, but also to possible, yet restrained, movements. The eyes may have been

moved and the head turned, but in spite of the impulses present in them the legs have not been used to bring the observer nearer to the object seen, nor have the arms and hands been raised to secure a contact with it, and perhaps a tracing of its lines, although some stimulus for such contact and tracing must be always present as a part of the actual or possible value of the experience. Or, again, to adopt an illustration used for a different purpose by Professor William James, so simple a process as the spelling of a word is complicated with all sorts of diverting and unsettling impulses as each letter is expressed. Let the word be *onomatopoetic*. Can I really spell it correctly? And what a gauntlet of dangers I have to run. The initial letter *o* tempts, perhaps with childhood memories of the alphabet, to *p-q-r-s-t*, etc., or to indefinite words or syllables, actual from my past or possible to my future experience, such as *of*, *off*, *opine*, *October*, *-ology*, *-ovy*, and so on, or, to suggest mere possibilities, such as *ontic*, *oreate*, *ot*, or *ow*; and every succeeding letter is equally a scene of combat, a place of dangers met—safely met, let us hope, and triumphantly passed. Worthy the boy, or the man, who reaches the end unhurt. And what a voyage of uncertainties, what a course between hope and fear, confidence and doubt, the spelling of words or the spelling of life as a whole always is. One's whole vocabulary, real or possible, or one's whole repertory of acts is more or less directly involved, whatever one does. As to the tentative nature of purpose, which seems the only other point here that can possibly require illustration, the right we all

reserve to change our minds in the different affairs of life tells its own story. We never do do, or can do, exactly what we consciously would do; and recognizing this, men, as well as women, insist on the right of a change of mind, and sometimes even of conscious misrepresentation or of disparity between their seeming and their being in thought or in deed. That such a claim has its dangers does not now concern us; it has also its opportunities; but the fact of it and the ground for it are quite evident. Even jurisprudence, for which loyalty to established and visible forms is peculiarly sacred, has its ways, direct and indirect, of recognizing that purposes develop, that the returns are never all in, that any purpose or meaning must sooner or later assume a new form, and so may even now be other than it seems. Bequests for institutions, for example, are allowed to continue in force, although, with the demands of a more enlightened day, the formal conditions under which they were made have been openly violated. In short—for it all comes to this—"Not the letter, but the spirit," is an inevitable comment, or at least an inevitable feeling about everything that is done. A man vaults a fence, and then, even if he get over fairly well, vaulting is not what it was for him. He may continue to use the old word, or the same arms and legs, but with a changed meaning and a changed feeling of limb and muscle, and so with a new purpose and a new body to control and modify his next performance. And what is true for vaulting is true also for making boxes or tables, for writing essays, for talking, for thinking, for founding colleges or theological seminaries, or finally, for

what we so indefinitely call living. An activity such as throughout its length and breadth ours is, a conscious activity that must for ever heed the call: "Not the letter, but the spirit," an activity that never is, therefore, and never can be without the elements of the game, since it must ever wait on its own revealed consequences in order to grow into an understanding of its real meaning; such an activity, among other things, cannot but fasten doubt upon us as a most natural heritage. As man is conscious, to doubt is human. Other things may be human, too, but doubt is so certainly and conspicuously.

Thirdly, in this presentation of general facts: *Doubt is inseparable from habit.* Habit is usually associated with what is permanent and established, but just here lies its undoing. As we usually understand it, habit really deadens what it touches by leading to abstraction or separation from actual conditions. Conservative as it surely is in things important and in things unimportant, in things personal and in things social, it sets him who is party to it behind the times, for no act in its second expression, no simply repeated act, no mere habit could ever be up to date in the sense of really meeting all the emergencies of its own time. Personal habits make fixed characters; social habits make customs and laws; religious habits make churches and creeds; intellectual habits make schools; and of all these products, which for the sake of the single term we will call institutions, it must be said, however paradoxically, that in being made they are also outgrown, for the habitual turns formal and unreal and so unsatisfying. A growing nature has

her ways of making even conservatives keep pace with her. An institution in the sense of an acquired manner of action, personal or social, can never really be an end in itself, although to a narrow view it may often seem to be; it is at best only the manifested means to a newly developed or developing end which must eventually transform it. In so large a thing, for example, as political life, the institutes of monarchy have become the instruments of democracy, and this conspicuously ever since the French Revolution; in the history of thought, of man's intellectual life, the objective dogmas of one time have been only the subjective standpoints of the next, the metaphysics of one time has made the scientific method, the working hypothesis, of the succeeding time; and in so small a thing as a child's vocabulary, the oft-repeated and finally mastered syllable *ba*, or some other equally intellectual, has become in time only one of the means to a whole word, say *baby* or *bath*, or even *basilica* or *barometrograph*. In all life the thing we get the habit of is only a tool with which we strive towards something else. Some one thinking no doubt of Hercules has called the institutions of life a great club which the irresistible arm of society, always a hero when looked back upon, swings fatally against the present.

So intimately is change seen nowadays to be related to habit, or indirectly involved in it, that in technical science a new account of habit has been formulated. To cite but one case, Professor Baldwin, says:[1] "Habit expresses the tendency of the organ-

[1] *Mental Development of the Child and the Race. Methods and Processes.* By James M. Baldwin. Macmillan, 1895.

ism to secure and retain its vital stimulations," and such an account, placing the interest of habit in so general and so changeable a thing as "vital stimulations," is designed to make habit fundamentally, not merely a tendency to repetition or imitation, but instead a demand for constant adaptation or differentiation. In the doctrines of inheritance, also, always moving necessarily in close sympathy with those of habit, a similar departure has been made. Both habit and inheritance are in fact seen to belong to life in a world of change, or variation, and they have assumed what I will style a protective colouring accordingly. The habit of always being adapted is at least as radical as it is conservative.

With this reform in the account of habit we have not only analogous reforms, as was said, in the account of inheritance, but also in the scientific view of character, custom, law, creed, and the institution generally. Moreover, if in scientific theory we find these new views, in practical life there are at least signs of the same standpoint. What may be called a new conservatism—the most truly conservative thing being taken to be the most thoroughly pertinent or adaptive thing—has for many years been getting possession of us, and is now quite manifest. Our political constitutions are amendable constitutions; our religious rites and doctrines are recognized as only symbols; our theories are only standpoints.

So, once more, because change is at least an ever-present companion, if not actually an integral part of habit, doubt must be as real and general as habit.

Change must make doubt. Sociologically, institutionalism must always imply a contemporary scepticism; the conservative must have an unbeliever for his neighbour. Indeed, to add an important point, some go so far as to say in general that change, that is, something new and different, is not only a necessary incident but also an actual motive in all activity, and when all is said they seem quite right. Perhaps habit, as always an interest in adaptation, would imply as much. Certainly novelty is a universal motive, and as for society there can be no question that it has a very strong predilection for lawlessness in all its forms. True, it may be objected that at times men, individually or collectively, seek not something else, but simply *more* of something already secured; more money, it may be, or more learning, or more territory, or more pleasure. There is, however, in spite of man's many conceits to the contrary, no change that is purely quantitative. *More* is also *different* or *other*. Accordingly, we both always find, and, what is even more to the point, always seek a real change whenever we do anything. To speak again in most general terms, the motion in the outer world, which is the fundamental stimulus of all consciousness, both physically, that is, literally, and figuratively, is more than merely an outer stimulus; something there is within the nature of the subject which answers to it with perfect sympathy and makes it equally an inner motive. Forsooth, could any stimulus ever produce a response without its being in accord with an existing motive? Life, then, is a game, and the game of life, doubts and all, is a real interest as well as a necessity. We are

creatures of habit, but we have, and we cherish, no habit stronger or more essential than the habit at once of adaptation and variation.[1]

A fourth general fact, very closely related to the foregoing, is this: *Doubt is necessary to life, to real life, to deep experience.* Doubt is but one of the phases of the resistance which a real life demands. Real life implies a constant challenge, and doubt is a form under which the challenge finds expression. The doubter is a questioner, a seeker; he has, then, something to overcome; he fears, too, as well as hopes.

Were all things settled once for all, were all things clearly known and freely executed, or were the consequences of the things to be done always capable of being accurately foretold, there would be no real

[1] Let me add, that if certain people, struggling in the present maze of educational theory, and objecting, with a zest and a combativeness that fairly belie their contentions, to the use of interest as the primal educational motive, if these people would only recognize change as always a part of interest, their greatest trouble would be removed. They refuse to have education easy or pleasant; interest, they insist, must make it so; and doubtless the advocates of interest are in part to blame for this view; but change, which to my mind is involved in all interest, includes resistance and struggle; change is ever a challenge to effort; and, such being the case, an education led by interest is not necessarily easy or idly pleasant. The real meaning of the interest theory, at least as I have to understand it, is simply (1) that the natural child or the natural man always has something to *do*, and (2) that education should promote that something. It is far from meaning that there should be no compulsion or discipline, no pain or self-denial. Whoever honestly ever expected to do, or ever did any thing without these? The interest theory, then, would not eliminate hardship or discipline, but, to my understanding, by making education serve actual life, would substitute a natural for an artificial and externally imposed hardship. Not hardship, but real achievement makes the educated man.

living, there would be nothing really to do. In such case life in general, or in any of its different expressions, religion, or politics, or art, or science, or industry, or morals, if one may suppose for a moment that any of these differences could ever develop, would consist in a purely passive condition, a mere fixed status; it would be a wholly static thing falsely called life; its movement, if movement there were, could be only the rest or routine of strictly mechanical motion.

To a real life, then, doubt, as an evidence of challenge and resistance, is absolutely necessary, and appreciation of just this necessity is certainly an important part of our present confession, and the confession is important, because it is sure somewhat to brighten what heretofore may have seemed a dark horizon. Confession often changes night to dawn, and here the association of doubt with real living, with a world in which there is always something to do, awakens emotions that such words as relativity, and instability, and change, and even game, have discouraged, or even wholly suppressed. Lessing, perhaps better than any one else, has given expression to these emotions, and has at the same time reflected what in his day had certainly begun to be, and what in our own time very widely and very deeply is, the ideal spirit. Thus, as he wrote:—

"Not the truth that any one may have or may think he has, but the honest effort which has been exerted to compass it, makes what is really worthy in human life. For not in having, but in seeking truth, are those powers developed, in which alone man's ever-increasing

perfection consists. Possession makes us inert, lazy, proud. If God held in his right hand the perfect truth, and in his left the ever-restless struggle after truth, and bade me choose, although I were bound to be ever and always in the wrong, I should humbly select the left, saying: 'Father, give; surely the pure truth is for Thee alone.'"

This is a splendid utterance, and it has touched a responsive chord in human nature the civilized world over, not so much, however, for the humility of the choice as for the zeal in a life of seeking and striving, or for the idea that knowledge is itself a dynamic thing, a living, moving function, not a passive possession. The knower is made also a doubter, and the doubter appears as having, in a sense, forgotten, without for a moment betraying, the constant doubting within him. If I may so speak, he has, even while he lacks; such is the condition of his seeking; such is the way in which doubting is necessary to real living. Doubt saves from the possession that makes "inert, lazy, proud," yet does not take away. Doubt makes experience always deep, even putting consciousness in touch with reality, and it makes life for ever living.

Still others may be quoted in the same vein. Socrates made life, particularly mental life, if this may be supposed distinct, essentially active or dynamic when he identified true wisdom with self-conscious ignorance, with a power in one of always finding oneself in error, and in modern times Hegel has done the same thing as effectually, though perhaps not in general so intelligibly, by finding a principle of negativity or contradiction the very mainspring of all

consciousness, of all thinking. Known truth is at once imperfect or even false, being necessarily partial, relative, and at best only tentative, very much, let us say, recalling something already remarked, as an established form of life is no longer the real life, but merely the developed means to a revolution, a life that is passing even as soon as it has come.

For the rest, the positive value of doubt to real life can hardly need further emphasis. In one form or another the idea, as important as many may find it commonplace, must constantly recur in these pages. We turn, therefore, to our fifth, and for the present, last general fact, with which we shall find ourselves still in sight, perhaps even in clearer sight of the brighter horizon. We are all universal doubters; doubt underlies all consciousness; even habit has gloomy doubt, as Horace would say, sitting up behind; like pain or want, like ignorance or contradiction, doubt is a dynamic principle, making experience deeper and ever deepening, and life real and alive; and fifthly: *As man is dependent and feels dependent, he is a doubter. His widespread, or rather his universal, sense of dependence begets doubt.* Witness the fact that doubt shows man a seeker after company; the company of nature, the company of his fellows, the company of God.

Of course the social impulse, thus to be associated with doubt, is only one of the phases of its dynamic and life-giving character, for a social life, a life of dependence on what is without, of real relations beyond self, must be a life of real and constant movement. Nothing so much as such relations gives

vitality. This special phase, however, of the place of doubt in real life is a very interesting one, and it suggests, besides, so much that is of positive value as almost to transform what so far has been in large part a sceptic's confession into a sceptic's boast.

Thus, in the first place, doubt seeks the company of nature. "Return to nature!" has time and again in human history been the cry of the human heart. Has civilization lost its hold, seeming unreal, artificial, formal? Has morality become hollow? Has a lover suffered the shattering of his dearest hopes? Has a creed lost its credibility? Have you and I wearied of our study or our labour, whatever it be, and come to wonder if it, or anything, is worth while after all? Have friends, ideals, and God Himself deserted us? We turn, and all people turn to nature. Exactly so the homesick traveller takes himself homeward, or the prodigal arises and goes to his father. And your experience and mine, and the poetry of all literatures, which tells so deeply the experiences of all men of all times, are a constant witness to the comfort, and forgiveness, and renewed confidence in self that nature imparts. Nature is our infancy, in which all things are possible; she is our untrammelled will; she is infinitely hopeful for us and infinitely kind; her necessity is so wide and so open that its very law, so different from any human law, is our greatest opportunity. True, our resort to nature is sometimes, perhaps in greater or less degree always, by the way of moral dissipation, or political anarchy, or intellectual suicide, or religious profanity; but even these dark ways to the home and the great mother-heart of

us all have never been hopelessly misleading. If history and literature and personal experience can be trusted, even they have led to a kind nature. Have you never failed in anything and become reckless, and then profited from the very knowledge of yourself which the recklessness uncovered? Personally and socially recklessness, return to nature that it is, is always a helpful assistant to nature's great teacher, experience. Great is the pathos, but also, as it is understood, great is the inspiration of Rousseau's passionate outcry that his will was perfectly good. He was incapable of a single wholesome relation in life, yet, so he said, no man was better than he! Rousseau, philosopher of revolution, spoke for nature. Out of her great love, nature always takes the will for the deed—and perhaps she alone should have the privilege of doing that; for she knows that the deed, however violent, however bad, is sure to leave at least the will good.

But intellectually, as well as morally or politically, or as well as in any of the departments of the practical, emotional life, when trouble comes we turn to nature. Nature has a mind as well as a heart, and when state, and church, and social tradition have lost their validity and infallibility, their various formulæ being no longer reasonable to us, when we have to depose them from their position as our accepted teachers, then we become scientists, which is to say, intellectual prodigals. Science, the open-minded study of nature, is only a homesickness for truth seeking relief. Does the scientist doubt? He is one of the princes of doubters. He doubts, as in due time we

shall more fully appreciate, even to the extreme position of agnosticism. He doubts all things human that always he may be learning of nature.

So the companionship of nature for the comfort and pardon which she is sure to give, and for the deeper knowledge which she is certain to impart, is a passion of the doubter. True, no passion is free from dangers; yet this passion, at least this passion, has somewhat of hope in it.

But, secondly, the companionship of one's fellows is not less strongly desired. Huddling together in time of distress is by no means peculiar to the animal world; in human life it has more than once made distress seem richly worth while. "We have each other" in word or thought has been the comforting reflection of many a family, or many a community, when the money has gone, or when in other ways, possibly through a great fire, or a great earthquake, or the ravages of a disease, afflictions have come, and "Now we know how others have suffered" has been not less common. Indeed, it is my own conviction that these two reflections always rise together. The distress or affliction of doubt, however, is certainly no exception to the rule. Doubt often separates an individual from the customary corporate life with which he has long identified himself, throwing him out of his church, or his party, or his society, or even his immediate family, but the doubter at once feels his loneliness, and gets a yearning, never realized before, for social relations. Benedict Spinoza may have been better than most of us, but he was not in any other way different, and though maligned and insulted, as earlier in history

another of his race had been, for his doubts and heresies, and though exposed to the dangers of the assassin's knife, and finally, when other measures failed, with special cruelties excommunicated by his synagogue, he loved his people, and all men besides, as few have loved them. Doubt makes one dependent; isolation gives a sense of loss; and, if ever a solution of the doubt comes, in the life and consciousness which it enjoins the lost companions, whether they will or not, are included with oneself. In many ways this is an important fact; yet it must suffice that we see the affinity of the doubter for society. Man ever confidently seeks what man has lost. Dependent man and doubting man must have society.

That doubt, furthermore, not only creates a motive to social life, even to the restoration of lost companions, but also by weakening the barriers which have divided some class, a sect perhaps, or a party, or a nation, or a race, from some other class, puts social life on a broader and deeper basis, is also an important fact, and full of significance beyond our immediate interest. Thus, to suggest indeed how those two reflections mentioned in the preceding paragraph are inseparable, besides his wish to retain or recover his wonted companions, the doubter would also associate them and himself with new companions, I venture to say, as if in a figure, with Gentiles as well as with Jews, and this gives to doubt, or to those who experience it and adequately use it, a most significant rôle in the evolution of society, the rôle of mediation between old friends and new, between the past and the future, the narrow life and the broader

and deeper life, what is conservative and what is progressive; but at least for the present it is again enough if we see that doubt, not only by its personal losses gives the motive, but also by its removal of barriers gives the larger possibility of society.

And, in addition to the company of nature and the company of man, doubt, springing as it does from man's sense of insufficiency, seeks also the company of God; yet not of the God of any theology. As here conceived, God is that which lies at the back of nature, and at the back of man in the sense of being in character broader and deeper than either of these, and quite superior to any difference between them; he is the single, all-inclusive, wholly indeterminate reality upon which the doubter depends, and must depend; he is as nameless and unspeakable as he is indeterminate and all-inclusive, and he is real and perfect only as so nameless. To theology, God is determinate; to doubt, imperfect if determinate. At times, perhaps only half in earnest, or at least not clearly knowing if he is in earnest or if he wishes others to think him so, the doubter speaks of nature as his God, of the hills, or the fields, or the sea, or the sky, or the busy street as his church, or the great book of the universe as his Bible. At times, with the deepest emotion and with open avowal, nature and God are fully one to him, and the poetry, or the science, or the philosophy, to which his doubting leads him, is veritably a religious revelation. But always his doubting, as he knows it, as he is honest with it, is an appeal, not merely to nature as physically a powerful agent in the life he is pursuing, nor to others like himself who, by sharing,

may lighten his distress and enhance his final victory, but also to a full, inclusive experience; to a life, perhaps like his own, yet indeterminately deeper than any he has known; to a mind and a heart, such as he knows must be present in that which surrounds him and moves within him, in knowledge more enlightened and in emotion more inspired, than his doubting mind and faltering heart have ever been; and such a life or such a mind or heart, whatever name it be called by, is God. Can mind appeal to anything but mind, or heart to anything but heart? And doubt—can it be doubt without the appeal?

The doubter who refuses or hesitates to speak the name of God may thus be a protestant, but plainly he is no atheist. A mere name, in any case, is quite as likely to obscure as to illumine the reality; the chiaroscuro effect must ever belong to it. Doubt is no road to atheism. As a way to theism it may be beset with hardship, and its goal may be quite beyond the horizon; but the doubter is not by nature an atheist; quite the contrary. As no other, feeling dependent, he is a seeker, and even a confident seeker after what is perfect. He truly and confidently seeketh, for he seeketh after what hath neither visible form nor body, what is without habitation or name, what, like the Son of Man, hath not where to lay its head. He seeketh, what his very seeking itself is, not a God, but the life of the God.

The general facts about doubt are now before us, and although much needs yet to be said in explanation, and a further fact is reserved for a con-

cluding chapter, still not so darkly as it began this first chapter in our confession of doubt has come, perhaps somewhat abruptly, to an end. We have next, entering more fully and critically into the conditions of our human experience, to scrutinize closely our ordinary habits of mind, those common-sense views of things that on the whole prevail among men. In these ideas, impulsive, unreasoning, above all often flatly contradictory, we shall find some of the strongest reasons for our doubting nature.

III.

DIFFICULTIES IN OUR ORDINARY VIEWS OF THINGS.

If the doubter were brought into court under indictment for his offences against common sense, against ordinary experience and belief, and the jury of his peers sitting upon the case were composed, as of course it would be likely to be, of faithful believers chosen at random from the different walks of practical life, no better defence could possibly be offered than a simple statement of the incongruities which the consciousness of ordinary life is constantly addicted to. True, for some reason lying deep in human nature, a defence that ends by convicting the jury of error, is hardly likely to lead to the immediate discharge of the prisoner; judges or jurymen are not in the habit of taking a rebuff in that way; but in course of time the prisoner will be justified, and his justification, however tardy, is all that now concerns us. To his defence, therefore, and the discomfiture of his judges, but to the latter without any malice, we turn at once.

And where shall we begin? Our predicament in this defence is something like that of the small boy, bewildered over the task of "picking up" his nursery.

"I can't do it," he says. "There are so many things; I can't tell which to take first." Poor little fellow! If he halts now, what will he do when the littered room—I had almost said the littered playroom—of his later life confronts him? Contradictions under foot everywhere are certainly not less confusing than blocks, horses, papers, trains, marbles, picture-books, and the like—or unlike—scattered over a nursery floor.

Here, for example, in practical life is the natural, physical world. How real, brutally real, it is; its very law is fate; its forces are no respecters of persons, inexorably ruling and compelling all alike, giving life and taking it, full of the grimmest humour, raising hopes only to cast them down. Is some one rash enough to suggest that things physical are only so many ideas, real only as states of mind, of God's mind possibly, in some way coming to consciousness in the senses of men? The practical man knows a thing or two about that. He kicks a stone, or strikes his fist loudly upon a table, and so ends the matter, laughing the mad idealist away. And yet, prestissimo change! What do we hear him saying now? This brutally real world of physical things and powers is but a fleeting show; a thing only of space and time. What is really real and abiding is the spiritual that is everywhere and always. Another world there is, not to be spoken of in the same breath with this present world, a world compared with which this is but a mist before the eyes.

In so many familiar ways this duplicity towards what is real is manifest. People go to church to do such a wonderfully strange thing; nothing more

nor less than to save their real souls from an unreal world, or sometimes to hide a real worldliness under unreal rites or symbols. "You may think me worldly, selfish, sensuous," says some one, "and I can not deny that often I do seem so, but this life of mine is ever only a yearning after the things that are spiritual, for which, as you see, I pray so earnestly, and which have nothing at all to do with one's worldly life." Yes, we do see, and particularly we see that things spiritual are often an impertinence in worldly affairs. The "real self" never does the things that are really done. Only this, just this is where the duplicity lies. Again, from some one else, a practical man presumably and an accuser of the doubter, we hear the following: "Only the spiritual life is real; look to it that you fear, as I fear, deeply and constantly the material world hanging like a sword over us all." Can it be, as would certainly appear, that superstition is still among us, that so readily we can give reality to unreality, that belief in ghosts still holds our human minds? Once upon a time—at least once—the Christian Church rose in bitter resentment because a certain man, by merely questioning the separate reality of the physical world, threatened to deprive the holy priesthood, with all its time-honoured prerogatives, of its heaven-appointed labour. Yet what is to be said of a church that prefers to think of an independent physical world, by which man is bound and damned, in order to save for itself the task, either hopeless or useless, of rescuing him? Labelling a man "rescued" or "Christian" does not make another-world creature of him. In political history, too, what

a paradox it is that kingship by divine right has always been also kingship by physical might. The practices of an avowed supernaturalism have always been strangely materialistic.

So, in high places and in low, in the affairs of men now and in the past, the physical and the spiritual have ever been in a most remarkable relation; each real in and by itself, but with a most unusual courtesy also unreal at the slightest motion from the other; each now supreme, and now wholly subject; each now the whole life of man, and now the very opposite, the antipodes of all that is human; and each self-existent and independent, yet never without its real need of the other. Here surely is contradiction, or vacillation, in experience that is, to say the least, very confusing to him who reflects.[1]

But, to take up something else certainly not less confusing to the ordinary mind, "practical," and unaccustomed to reflection, this is a world of separate, individual things, of chairs, hands, atoms, eyes, stars, men, stones, books, leaves, rivers, lives, mountains, relations, notions, distances, days or years, and so on,

[1] In the rise of Christian Science, against which I have no special grudge, although I have already taken exceptions to its claims, there is a special case, special because affecting a single, relatively small class, of the popular hospitality to contradiction. Thus, the Christian Scientists would reduce all reality to mind, but at the same time they busily deny reality to a large group of mind facts, namely and notably, the ideas of disease. Recently, it is true, according to the newspapers, their healers have been told to "decline to doctor infectious or contagious diseases," yet not because such diseases have any reality, but because the illusion of them is so real as to make the "Christian" treatment of them both imprudent and impractical. Philosophies and religions of illusion are certainly weird, uncanny things!

indefinitely and above all indiscriminately; a world, moreover, into which in part God, in part man, defying an equally powerful agent of chaos or dissipation, has put at least for a time a certain kind of order, an order that might be said to be good enough for all practical purposes. Yet with all its indiscriminate manifoldness, and with the irregular, uncertain conflict between chaos and order, it is nevertheless a single world, in short, just one more individual thing, one more example, perhaps outdoing all others, of the marvellous license with which human beings are wont to speak and think of a "thing." Chairs, hands, mountains, men, stars, and the whole universe, are all "things," and in this world of things, that is itself another thing, or, should I rather say, *apart from* this world of things, that is another thing, there are two, at least two, discordant powers taking turns at making order and disorder.

Confusion indeed! Nor have I exaggerated it. The loose association of chairs, distances, and days; the easy assumption of two supreme agents working against each other; the certain uncertainty about these agents being in the world or out of it, of it or not of it; and the readiness with which the whole universe, the all-inclusive thing, is treated as only one more thing to be included: these habits of the ordinary mind show a confusion that seems like insanity. Can we even face them safely and soberly?

For special regard I select just one, perhaps the central one; the habit of treating the universe, the unity of all things, as but one additional thing, the whole, as if it were only another part, the complete

and infinite as if distinct from or outside of what is finite or incomplete; or again, in good old philosophical terms, the One as if it were another and so in effect, but one of the Many. Now some there are, and their number may be large, who never have thought of the contradiction and consequent confusion in the notion of a single world made up of many single things, yet itself another thing, or of the Infinite as external to the Finite, or of the One as not in and of the Many, but the contradiction is there, and can scarcely need more than mention to be seen.

Even in theory, scientific or philosophical, the wholeness or unity of the many things of the world has sometimes been taken for just one more thing, as when Anaximander taught that it was "that thing which is no one of the world's things," or for one of the many things supposed by it to be unified, as when Thales so naïvely declared all things to be water. Anaximander and Thales were only ancient Greeks, albeit very wise and enlightened Greeks, living as early as 600 B.C., but in very recent times they have had followers. Electricity has been taken as the one force of all other forces. Our chemists, some of them, have been hunting down the one element among the rest. Statesmen and churchmen have often dreamt of one man as somehow in his single person expressing the unity of all human life, and more than once they have even imagined him present in the flesh. God, although the Being in whom we, as ourselves persons, live and move and have our being, has Himself been another person. Society and its supposed component individuals have made two orders

of existence. Life and living creatures; history and its many events; the solar system and its planets: nature and all her various kingdoms: these have also been held apart, making amazing dualisms. But, simply to repeat from above, taking the whole or the unity of all things as itself an independent thing, as itself one more thing, is a contradiction that needs only to be stated clearly to be appreciated. Let me hope that I have stated it clearly.

Nor is this particular conflict in our ordinary ideas yet before us in all its fatefulness, for—as if to defy the principle of consistency to the very last degree of its forbearance—we are often, if not usually, given not only to unifying our world of things in terms of just one more thing, or of persons in terms of just one more person, but also to thinking of this one more thing, or person as *sui generis*, as altogether different in nature and substance. So do we mingle our duplicity about reality with that about the unity of things. The many, for example, are physical or of the substance of matter; the one is ideal or of the substance of mind or spirit. The many persons are merely human, the One is divine. Strange, indeed, that men should ever take one more as the unity of all the rest, but if possible it is at least, at first sight, stranger that this one more should be relegated to a sphere wholly apart and peculiar. In the madness of such compounded contradiction there may lurk real method, but of the contradiction and of the compounding there can be no question.

Even the soul, a something, an entity, that each one of us has been in the habit of claiming for himself

and of holding very sacred and inviolate too, has been subjected to the same way of thinking. Doubtless, since God has not been spared, we should hardly expect the soul to escape. We view the soul so materialistically, even while we insist that it is not material. We say, we think, that it is something in the body; yet, of course, we are at our wit's end to tell just what particular place it occupies there. Similarly, God is supposed to be somewhere in the Universe, yet in no assignable place, and the chemist's universal atom is somewhere also, though surely not in the same place, and, wherever it be, waiting with its own, yet certainly a divine patience that ought to be inspiring, for experimental discovery. But with regard to the soul, although the life and unity of the body, although one of the things in the body, the soul itself is not bodily at all; it can enter the body and is important—who dares say how important?—to the body, and it can, as at death, leave the body, but though for a time in, it never is of the body. A strange standpoint certainly, but men insist that it is quite as true as it is strange. It seems very much like saying that when you build a house, in order to ensure it real solidarity, to give it real permanence and integrity, you should make a special point of putting your bricks or your lumber together, not with clinging, well-set mortar, or strong pins and straight-driven nails, but so much more sensibly, because so much further from what would be like the material bricks or lumber, or like the equally material mortar or nails, with those real and really compact things, absolutely continuous or indivisible, or at least indestructible

even when disintegrated, empty space and pure uneventful time. With such space and time there would be union indeed! But, again, strange as such a procedure in building a house would be, men insist or at least I can readily imagine their insistence, that houses are built in that way, and built successfully. The method may seem absurd, but they insist that it is not madness. Are not abstract plans and such seemingly unsubstantial things as mathematical formulæ, which are very near to being made of empty space and time, the real strength and integrity of all our great modern structures? And the soul, whatever be said of its being an immaterial thing, *is* nevertheless, even for being both immaterial and thing, the very sinew of the body.

Here may be method, then, and sanity, but there is always contradiction, obstinate contradiction, compounded contradiction! The soul, unity of the body, is only another thing or part in the body, and at the same time, though in the body, it is after all not really of the body. Possibly, perhaps necessarily, such patent contradiction, and, more than all, such compounding of contradiction, like doubling a negative, make for what is without contradiction, but this wholesome result is not consciously intended, and in the face of all, whatever our hopes or our beliefs, we must feel grave doubts and confess our doubting. Those who do build better than they know, if enlightened, would not again build in the same way. Two contradictions may be better than one, but even two make us wonder.

Closely connected with the contradictions in our

customary ideas of reality, and ideas of wholeness or unity, there is the way in which we calmly take opposite sides in our notions about space and time, and about that very fundamental factor of our experience—causation. These are, all of them, so general and fundamental as possibly to seem too abstruse even for mention in this place, since throughout these chapters we are courting simplicity, but of space, and time, and causation, only what is very simple needs to be said. Thus to the ordinary consciousness how fatally things are separated from each other by conditions of space and time. Then is not now. Here is not there. Space and time are only physical and as brutal as all things physical, separating this from that with a finality that knows no degree. Lovers, continents apart, despair over the cruel distance. Time tears us ruthlessly from those dear to us. What is to be, as well as what was, though in the next moment, is absolutely beyond our grasp. Could anything be freer from dispute than the reality and the separating brutality of space and time? Yet, almost at a whisper, all distance and all duration become as nothing. Do not the lovers write to each other, flatly and passionately denying that they are far apart? Do we not constantly forestall the future and retain the past? Indeed, when all is said, a thousand years are as one day, and all the places of the earth are one. So real, and so vast, and so physical to us but a moment ago, space and time have now passed into mere phantoms of the imagination. We live, then, not only in a world that is brutally spatial and temporal, but also, and at the same time,

in a world that is not spatial and not temporal at all; and living here—or there?—we have again to wonder and to doubt even in our belief. To our own constant amazement we find that we make our life a bridge over what would seem to be an absolutely impassable chasm.

As for causation our temerity is not less surprising. Wet and dry moons, unlucky Fridays, holy and unholy numbers, haunted houses, so-called providences, free in the sense of indifferently, irresponsibly free wills and fiat deities with their suddenly made worlds may not be generally in vogue at the present time, at least among the better educated, the enlightened and not infrequently conceited classes, but even among the wise and the consciously informed they have their natural offspring, and I am not so sure that many of them might not be found almost intact, at least in the more retired parts of the consciousness of my readers. To illustrate, for some if not for all of us, this is a world of many free and independent causes, yet also it is the single effect of one cause; it is again, our mood having changed, the single effect of two absolutely unlike beings or natures, each of them an all-powerful cause; it is a sphere here and now of causal, creative, productive activity, but it was itself created once for all long ago, at a date which the exegete hopes—in the equally distant future!—to determine for us; it contains some things that are only causes and some that are only effects, or some, or all, that are both causes and effects; it has parts that are the accepted causes of other parts; it has causes, those acting now and the one original cause, that are tem-

porally antecedent to their effects; and, not to make the list longer, it is variously a world of one last effect, of one first and only cause, of an infinite series of causes and effects, and in whole, or in part, it constantly shows something made out of nothing or nothing resulting from something. A wondrous world most assuredly; and yet at first statement this record of our various notions of causation may not appear as a very serious arraignment of the consciousness which it exposes. Moreover some people actually glory in such a wonder as it presents. But, to be plain, though also monotonous, the uncaused cause or the effect that is only a part of the whole, or the cause or the effect that refuses to share in the other's nature, or finally the causation that is now so individual and so manifold and so effective, and that was once so single and so complete, is something that must give any thinker pause. Can a moving body move an immobile body? Can some things in the universe be mobile; others not? Can the moving body and the moved body belong to different moments of time? Can motion lead to rest or rest to motion? But our ordinary ideas of causation would allow, or even require, an affirmative answer to every one of these questions.

Alas! Shall this labour proceed? Can we afford to continue it? The defence of the doubter is getting almost too successful; it is becoming too personal to be pleasant. The task of picking up the room of our ordinary life grows harder, not easier, as it moves forward. Every thing that we touch tells of a spirit of violence in our nature. Even the small boy can not have been more lawless, for his toys were all

battered perhaps, but not, like ours, all broken. Can we afford to go on? Afford it or not, we simply can not help ourselves, for our self-confidence is already shattered; our attention to the disorder is already beyond our control; each one of us is the doubter we would defend.

Here close at hand, where we have to see it, is another contradiction common in all human experience. It inheres in our conceits about knowledge. For us, on the one hand, the world we know not only really is, the tree out yonder or the planet miles and miles away being really and actually there, but also is just the world which our knowledge reports to us. What we have knowledge of is in our belief a real thing in and by itself, and we know it literally and directly, not figuratively, not afar off through symbols; we know it as it is; we know a real world, and we know it face to face. Yet, on the other hand, with all this simple confidence in our knowledge, what are we also given to saying, or assuming when we do not say it? Even in the moment of our confidence we humble ourselves with the cry of our utter foolishness, making our recognized foolishness only a counter-conceit. What but perfect folly is our knowledge before God's knowledge! "Illusion! The dream of a few hours or a few years!" is so often the best we can say of the whole fabric, past and present, of human consciousness. Not now, but only in the hereafter are we to see reality face to face; now we see only very darkly, if at all.

Some one here protests strenuously, raising an objection that might very properly have been raised

before. Thus, I am told that only different people, or only the same people at different times, ever hold two opposite views, whether about knowledge or any thing else; never one and the same person at the same time holds them both; and so the present arraignment can not be as serious as it is made to appear. Well, with this objection I can agree in part, for there is at least a half-truth in it, but by no means does it tell, either in general or in particular, that is, with regard to the special case of the conceits about knowledge, the whole story of double living or double thinking among men. Indeed the easy way, in which men make the distinctions of society or the distinctions of time bear the responsibility for what must always in the end be the conflicts of their personal lives, is but another illustration of the difficulties besetting their ordinary views of things. Duplicity of view, like anything else in experience, must always be more than a matter of different people or different times, for the simple reason that, whether directly personal or not, it is present in the environment of the individual person. So, even if those two positions, confidence in worldly knowledge and religious trust and humility, for the sake of argument be momentarily associated only with different persons or social classes or times, our present point will really be just exactly as pointed, for there is always a third person or class or time into whose direct single experience the duplicity or contradiction is bound to enter. Consider, for example, the case of a child. For a part of the week he is perhaps at school; on Sunday at church; and the life in which he thus takes part must

appear to him, there being in all probability little or no reservation on either side, to be hopelessly divided against itself. Now is knowledge power; now hindrance and greatest danger. Now he is to learn all he can; now, on the other hand, to forget what he may have learned. So is the conflict about him made his personal conflict, and exactly as in his case, so in all human experience the individual must share personally whatever the environment affords.

The individual and the environing society are the closest of blood relations, though we often allow ourselves, all too easily as has been said, to lose sight of the fact; they live under the same roof, and rely for sustenance on the same fare; and while to some the contradictions of life may be overlooked as personally impertinent and unimportant, being referred wholly to the environment, they are plainly the unavoidable heritage and the personal responsibility of every individual that counts himself a member of the human race. The objection, then, that was raised does not remove contradiction as a cause of doubt, but merely emphasizes what in a subsequent chapter must occupy us, the social aspect of experience.[1] Thus, not only does experience, in ways now coming to our view, teem with contradictions, and is contradiction a cause of doubt, but also experience so conditioned is social as well as individual, a matter of personal relations between man and man as well as a matter of the single person's inner responsibility. Society in its manifold classes, in its conflicts and in its history, may help us to see the whole of experience, the unity

[1] Chapter VII.

of experience on all sides and in all parts, but it never does, and it never can, relieve the individual, or deprive the individual, of any side or part of what makes up an experience-whole. Grown men and women may be more definitely set in their lives and their ideas to certain specific things than children, but in no one, young or old, can such specialism ever be wholly exclusive of any of the other things.

To return to our immediate interest, if men are given to being doubters in their views about reality, spiritual and material; about unity or wholeness; about space and time, on the one hand fatally vast and independently real, and on the other formal and illusory; about causality, so actual and positive now, and yet so complete yesterday, or ever and ever so long ago; and about knowledge, so perfectly wise and so thoroughly vain and foolish; if, I say, men are double in all these different ways, in their moral judgments they seem, if possible, even more confused, and the confusion, the division against themselves, is the more serious for being with regard to what so directly concerns personal life and human fellowship.

To begin with, as will indeed readily appear, the offences of our moral judgments, which often, if not always, are largely influenced by religious or rather theological conceptions, are only a peculiar expression of the two-faced attitude towards causation, human persons or wills being the causes specially involved. In general the causes of the universe are of three sorts, those of natural force, those of supernatural agency, and those of human agency, and although toward them all essentially the same attitude is

assumed, it is worth our while to consider particularly the causation that is commonly adjudged to belong to the human will and the moral ideas that spring from it.

For the purposes of the moral consciousness we translate the two conflicting powers of our world, or the spiritual reality and the material, into two agents of good and evil respectively, each having a power of doing whatever, true to its peculiar character, it may will to do, and then, as if in accord with this way of thinking, we find two distinct selves, a good self and an evil self, within each one of us, and we also divide the body social into two exclusive classes, the class of those who are identified with the righteous life and the class of those given to the unrighteous life, the sheep and the goats, the elect and the damned. But, to say nothing of the fact that these three ideas of the two powers, the two selves and the two classes, cannot be made really to accord with each other, although they possess an outward agreement, is it not clear that any attempt to take the good and the evil as two mutually exclusive things, be they spirits or selves or classes, is to destroy at once the real substance of virtue and the real value of the consciousness of evil? In practical life this means, what everybody knows so well, that an isolated, unduly holy righteousness, a sort of touch-me-not goodness, is bound to be empty, to be only ritualistic and aristocratic or pharisaical, and in any one of these respects it appears decidedly unrighteous; while an isolated unrighteousness, besides having at least the moral worth of a protest against its counterpart, is in itself exactly like the original

sinfulness of the theologian; being unavoidable, it is wholly without any warranted opprobrium. Indeed, it all but comes to this, that righteousness as a fixed thing, fixed to a part of the universe or to a part of the individual self or to a part of society, is really in just so far evil, and the direct opposite of such righteousness is proportionately good. Good and evil, then, may not mix well, but certain it is that contradiction results from the common attempt of men to regard either as untainted or untempered by the other.

Still, not upon this real difficulty in our moral judgments would I now lay greatest stress, although it is real enough and important. In yet another way our moral consciousness is at war with itself. In estimating the worth of human conduct, so far as this is determined by its initiation, we are in an almost hopeless tangle. We are more than likely to think of other people as influenced by their environment in what they do, of ourselves as quite original and responsible, as independent of any such influences; or, more fully and more exactly, we are given to referring our own bad deeds to environment, our good deeds to ourselves, while for others we are prompted to do just the reverse, referring their good deeds to environment, their bad deeds to themselves. Such is human nature—not, to be sure, at its best, but common human nature; and even when we escape the foregoing personally invidious distinctions, we still—and this is the main point—treat self and environment as two naturally conflicting, altogether independent sources of conduct. Two different and independent sources of anything,

however, can only make for conflict and contradiction. If only our courts of law could judge responsibility either wholly from the determinations of environment or wholly from those of personal will, or again, if only the will and the environment could be seen as not so radically opposed, what a simplification would ensue, and how much freer and more certain justice would be. To venture on a variation of an aphorism, where there's another way there is always a loophole; where there's environment there is always a shifted responsibility; where there's a "free will" there is always a will taken for some unperformed or imperfectly performed deed.

So the double origin of conduct offers a very serious difficulty, which, when it is understood, is not unlike that of the two powers or selves or classes, but even more is to be said in exposure of our moral judgments. Thus we have the confident conceit of freedom, of our own freedom in good or our neighbour's freedom in evil, or in general of man's freedom to act without regard to the determinations from environment, but we have also a strange though possibly a fortunate way of qualifying the very freedom that we claim. We claim freedom only to avow, almost in the same breath, duties and responsibilities. We have the freedom, but only the duties make it worth anything. A startling paradox this, so familiar to us all: "I am free to do all that I ought to do," or, "I am free to carry out certain necessities of my true life." A startling paradox; and, above all, a strange way of escaping the necessities of environment, unless, forsooth, it really opens the door, or supplies a secret door, by which the

necessities of environment and the necessities of one's true life can come together? If freedom demands law, why should it hold aloof from the natural law, the law of environment so definitely present? Possibly, then, as once before suggested, one contradiction in experience may be the corrective of another, the paradox of freedom and duty only correcting the contradiction of two sources of conduct, personal will and environment. In the case, for example, of the disposition to distinguish between one's own acts and another's, with respect to their initiation by will or by environment, to mingle duty and necessity with one's own supposed freedom is equivalent in effect to denying one's neighbour's freedom because of the restraints of his environment. But such considerations, however promising for future reflection upon the conflicts in our moral consciousness, are not of immediate interest. Our doubts may once more find hope in the reflection that the faults of experience may balance themselves, but we have no occasion to abandon our doubting as idle or meaningless. Contradictions that balance each other, errors that are mutually corrective, are still contradictions, are still errors.

So, to reduce our moral judgments, confusion and all, to small compass, we are free, others are not; they are free, we are not; and our freedom is bound by duty, by duty to the moral law, while their freedom, unless a hopeless lawlessness, is bound by the environment and its law. Again, good and evil are each unmixed, and moral acts serve two masters—that is to say, spring from two sources. We may, therefore,

still believe in morality—yet how can this be? And freedom—yet how is freedom possible?

But finally, as last to be examined, there is the idea of law, just now brought to attention. This idea is a focus for a good many conflicting views. Witness the familiar argument from the knowledge of law in nature to fatalism, an argument as absurd as it is widespread, for the bare fact that we know the laws of nature really emancipates us from the blind fate to which the argument points. Can knowledge ever mean anything but freedom? Certainly no law can ever be known unless the sphere of its operation accords with the nature of those who have the knowledge. Simply to know is to share in and be at one with whatsoever is known, and the clearer and more cogent or rational the knowledge, the truer and realer is this participation or union. The law we know, then, must have all the meaning and the natural authority of a law of our own enactment, and so must actually have the sanction of our will. Will, I say, cannot help sanctioning knowledge, for knowledge is always true to, because conditioned by, the natural action of the knower. But no such message of freedom, or say of human opportunity in natural necessity, is commonly received by men at large from the evidences of law in nature. Superstitiously they see only fate. Clear knowledge and blind fate!

Nor are we commonly satisfied with only so much superstition. We go still further and make the case as bad as possible by treating the law we know as if in its spirit, if not in its letter, it were final. In other words, we view nature, with some of whose ways we

have become conversant, not merely as a source of blind fate, or external necessity, for our lives, but also as essentially and ultimately a sphere of strictly mechanical routine. Yet here again we are surely reasoning beyond our premises—the very essence of superstition—for the routine we know can never answer substantially, or even formally, to nature as she really is. Our positive knowledge, our knowledge that arrives at specific formulæ, even though these formulæ reach the noble dignity of mathematics, is bound to be in terms of some particular experience, personal or national or racial; it is relative and special; it is partial knowledge; and he is superstitious, and does, indeed, argue beyond his premises, who takes the whole, whose law he does not know, to be literally analogous to the part, whose law he thinks he knows, but can in fact know only partially. No whole ever is one of its parts, or merely analogous to one of its parts; *a* law never is *the* law, or even in its lawfulness literally analogous thereto; and mechanicalism, whether as a popular or a philosophical "ism," has no justification save just this false analogy.

And the prevalent confusion in the notions of law or lawfulness is of course reflected in the corresponding notions of lawlessness. Here, as with other negative terms, men forget that negatives necessarily are quite relative to their positives. All specific, definitely manifest, known and positive lawlessness simply must have some place in *the* law of things; it can no more be an absolute lawlessness than any human routine can be supposed final; and, on the other hand, there can be no positive law whose breaking has not some

sanction; there can be no lawfulness which does not warrant some lawlessness. This truth, perhaps as nothing else could, must show the error in the notion of mechanical routine as affording an adequate description of the ultimate nature of things. Where the whole always gives point to the negation of any of its parts, where *the* law always sanctions some breaking of any law, to think of the whole in terms of its parts may be human, but it is of the human which is prone to err. Those who would still insist upon seeing only routine in law, and upon judging lawlessness as only relative to such seeing, might do well, rising above their ordinary views, to remember with some real appreciation that once upon a time the law-breakers and the reformer were very closely associated; they were associated in life, and at the end they were crucified together. Whatever may be one's theology, there is a deal of food for thought in those deaths on Calvary and in the several lives which they closed.

Lawlessness suggests the supernatural. So many have promptly concluded that just as with the knowledge of law in nature human freedom must be resigned, blind fate taking its place, so anything or anybody at all supernatural, Satan—for example—as well as God, must once for all withdraw. If law reigns, God can will whatever he wills only because the law is so; the law is not so because he wills it; and this in common opinion only makes him decrepit, without real initiative, dead. Yet, once more, what superstition! The knowledge of law has never robbed man of his freedom, nor even slain his God; or this at least: the loss of freedom or the death of God, for

which any law that man has had knowledge of has been responsible, has always been only the forerunner of a larger and fuller freedom and of his God's resurrection and glorification. This or that law may rob and may kill, but this or that law, let me reiterate, never is *the* law, and why common opinion has to judge all things in heaven and earth, as if it were, is hard to comprehend. Neither nature nor God, if these two need to be thought of as two, is law-bound; each rather, with a meaning which I must hope now to have made clear, is law-free. The law in which nature is free is as infinite, as transcendent of any particular human experience as the ever-developing freedom of man or as the will of God. And God, or the Supernatural, is not confined to the narrow sphere of what man knows, as man knows it; this stands only for what man calls nature. God is the all-inclusive sphere or source of the absolute law, for which knowledge can be only a constant striving, or which is itself even a party to the constant striving. Somehow *the* law must be a living thing, not a routine: the supernatural must be not nature as she is known, but nature's fullest and deepest life.

Very emphatically what has just been said about nature or God being law-free, or about *the* law being infinite, or not analogous in form or substance, in spirit or letter, to any thing in positive knowledge, is no argument for the Jonah story or even for the miracle of the wine at Cana's wedding feast; and yet time and again people who apparently should have done enough thinking to know better, to the great satisfaction of thousands have used the infinity of

nature's or God's lawfulness, which is to say the only partial and tentative character of all human knowledge of law, as a clinching proof of all the miracles in the Bible. Can they not see that like what is lawless in general, the miraculous must be in the premises only relative to the experience of the time? Even chance is not less so. The spiritual meaning of those miracles may persist, for the miraculous we must always have with us; but if even our relative, imperfect knowledge stands for anything, if it be even a tentative knowledge, a working standpoint, the literal truth of most, or even all of them, disappeared long ago. Miracles, like laws, come and go; only the miraculous, like *the* law, goes on forever.

And this leads to something else, to something also very common, perhaps the reverse of the foregoing. With what an unaccountable delight many of us have accepted naturalistic explanations, for example, of the sun standing still, or of the retreat of the waters of the Red Sea, or of the Immaculate Conception, or of any of the many other marvels in either the Old or the New Testament, and have thought that so our old beliefs are to be preserved. I have myself heard honest and earnest men, even members of an academic community, appeal to parthenogenesis as a fact in nature which would at least make the miracle of Christ's birth scientifically plausible as well as spiritually significant; but such an appeal, besides being, in my opinion, positively irreverent, is as blind religiously as it is ignorant scientifically. Cannot such men appreciate, and cannot all others who do as they do also appreciate the fact that naturalistic explanation of

any miracle, if really a genuine explanation, may prove the fact, but must in just so far destroy, I do not say the miraculous, which is indestructible, but the particular miracle?

The lawful miracle, then—lawful, of course, so soon as explained—is one more contradiction in our prevalent notions about law. That it exemplifies, too, a habit of mind which is exercised by us in many directions besides that of interpretation of the arbitrary things of the Bible can hardly need be said. In life generally the arbitrary is peculiarly fond of going to law, sometimes to what is called nature's law, as when revolutionists of all sorts—strikers and radical reformers—raise the cry of "natural rights," laying down the law as to what men are by nature, and sometimes to "human" law, as when the conservatives in government or business with their vested rights, be these coal mines, oil fields, or political privileges, appeal for "justice" to the courts or to the military.

But, to say no more, with the lawful miracle, with law the strange support of what is arbitrary, with this as a very good example of the duplicity which in general we are all of us wont to allow in our practical life, the present exposure of our ordinary consciousness must come to an end. With regard to the real substance of things, or to their unity, or to the nature of space and time and causation, with regard to the worth of knowledge, with regard to our human conduct, to its freedom and responsibility, or finally with regard to the place of law in nature and in the life of man, our ordinary consciousness is manifestly inconsistent and vacillating—nay, is grossly contradictory; and we are

led at least to suspect that the disorder which we have found is inherent and essential, having the nature of an original human defect. Such a defect, however, is cause for doubt; so that man, above all "practical" man, having inconsistency or duplicity as almost, if not quite, an uncontrollable habit with him, should be himself a prince of sceptics.

And yet, although we have indeed found man spending at least his waking hours in a room that seems disorder incarnate, and although before the court of practical life the doubter seems thus to have been thoroughly justified, while his too hasty judges are in turn condemned, nevertheless the case for doubt is not of such a character as to leave absolutely no hope for belief. Now and again in the evidence, as it has been disclosed, have we not felt the presence of something, not yet given its due weight, that would make man more than a mere doubter and unbeliever? Have we not been led to suspect that somehow, without loss of their reality and validity, the most cogent reasons for doubt, even the contradictions in our views of things, might turn into bases of belief, that an experience essentially paradoxical may not be as hopeless as at first sight it may appear, that in all the madness there is at least a chance of some method? The view of science, however, must be examined before our attention can be turned definitely upon such a possibility. Enough if in our present doubting we are still left with a little hope.

CHAPTER IV.

THE VIEW OF SCIENCE: ITS RISE AND CHARACTER.

WITH science we usually associate accuracy and consistency, and at first thought we are not likely to expect that the work and standpoint of science can contain anything substantial enough for the doubter to base his claim upon; but second thought is our first duty at this time, and second thought always changes the view, and in this particular instance it will show science in important respects to be quite as vulnerable as the unreflective consciousness of practical life, for science also is honeycombed with contradiction and paradox.

More than once scientists themselves have turned sceptical about their work and its results. The cry of bankruptcy in science, not merely as a charge, but also as a confession, has been heard in the land not infrequently; now perhaps low and uncertain, but again clear and strong. And why not? Why should the scientist escape the questioning of other men? Subtle and wonderful as science is, does it transcend humanity? Surely, when all is said, the scientific consciousness is not formally different from the ordinary consciousness. The same eye is looking at

the same world, only through microscopes and telescopes. The same mind is measuring the same environment, only with carefully devised instruments of precision instead of arm's lengths or stone's throws and rules of thumb. In a word, science is merely the ordinary consciousness highly developed, not without considerable abstraction, into critically conscious method and clearest possible perception. Indeed, perhaps without myself clearly knowing all my reasons, I am constrained to say that science is related to ordinary perception very much as the inventor's consciousness of his wonderful flying-machine to the simple sensations of a bird. The mechanics of flying, so elaborately present to the former, are nevertheless also present in the latter, while with both we have the same eye or the same mind looking and the same world seen. The boasted methods and ideals of the one are but the only half-waking instincts of the other, and whatsoever is essential to either belongs also to the other. But, to mark the great difference between them, the inventor has the disposition to treat flying abstractly—that is, as if a thing by itself, as if for its own sake; and he goes even farther, making abstraction of the mere explanation and mechanical expression of flying; while the bird simply flies, and, if I may hope to be understood, all things else, the sun and the wind, the trees, and all living things, and you and I who follow his course are flying with him.

But no poetic soaring such as this can satisfy our present needs. To understand and appraise the view of science we must trace its rise as clearly as we can,

and then critically examine its peculiar conceits, its own ideal methods and attitudes.

As for the rise of the scientific view, we may well return to the definition of science given above: the ordinary consciousness highly developed, not without considerable abstraction, into critically conscious method and clearest possible perception. Perhaps development of anything is always at the cost of abstraction; but be this as it may, science certainly arises through an abstraction, namely, through the abstraction of consciousness of one's world, through the treatment of this mere consciousness as something to be cultivated quite for its own sake; and the motive and the meaning of such a treatment are not far to seek. Consciousness, to the exclusion or inhibition of direct, overt action, becomes a matter for abstract, which is to say, exclusive cultivation, with any serious change, with any upheaval in the familiar conditions of life. A man—or boy, if you prefer—is taking a cross-country run, and for a time all goes well; the manner of his going suffers no interruption, or no serious interruption; but gradually the undergrowth thickens from low bushes to higher brushwood, and at last, perhaps quite suddenly, breaking through some wild hedge, the runner finds himself at the very edge of a stream too wide and too deep for any ordinary crossing. Thereupon his running, or at least his forward running, say the running of his "real life," ceases, and looking takes its place. He is now, in a familiar phrase, "looking before leaping"; yet with his looking there is a good deal of running too, more or less overt, but also more or less

instrumental or merely mechanical, as, going from one point to another, he measures the relations of bank to bank, or of possible stepping-stones to each other, or hunts for fallen logs or for shallow places. But, finally, the measurements all made, the peculiar conditions as fully as possible appreciated, in the way found to be most feasible he crosses the stream and runs again. And just in that "looking before leaping," with the accompanying check put upon the forward running and with the change of the "real life" of running into merely instrumental action, we get at least a glimpse of what science is, of the sort of abstraction that its rise implies.

Only science, specifically so called, is more than such a casual, merely personal study of a new situation. Science is the distinct work of a distinct class abstractly studying a new situation that has confronted the progress not of an individual, but of a whole people, and in this character it gets at once all the advantages and all the conceits that belong in general to the life of a class. It gets, too, all the limitations. Science, once more, is not strictly a personal experience, although in personal experience, like that of the cross-country runner, we can get a glimpse of just that which may develop into science. Science is characteristically a profession. The runner withholds his running for a time and merely looks and studies, yet his looking is only for a time; sooner or later he will run again; and even while he studies there is his continued moving about, his instrumental action, as we called it; but the professional scientist waives all thought of possible future activity. Although in reality

his looking is before leaping, it is not consciously so for him; he is one who under the constraints of his class merely looks and studies, making of these processes things quite worthy in themselves.

In other words, to enlarge somewhat on what has just been said, the rise of the profession of science does indeed involve both the same check upon the "real life" and the same reduction of activity to a purely mechanical or instrumental character that we have pointed out in the case of the runner at the bank of the stream, but a number of different social classes divides the labour. In general, society as a means to the expression and development of human activity, be the activity running or living in a broader and fuller sense, always shows the different phases or factors of the experience identified more or less exclusively with as many different classes or groups, and, in respect to the particular case here under consideration, upon the rise of science society appears to delegate the work of careful observation and critical thinking to a separate class, which, as already suggested, gives up any direct responsibility to the real life. Another distinct class, arising contemporaneously, is composed of those who do feel directly responsible, or "practical," continuing the life of positive, overt action. This second class maintains the vital processes, although in a more or less consciously instrumental way, since its members have the lives of others as well as their own lives to support. So society gets its workers or labourers as well as its observers and thinkers.

The rise of science, then, involves a disrupted society. Moreover, the division is by no means so

simple as the foregoing analysis may seem to have implied. Observing and thinking, for example, have often made, too, separate sub-classes, and also there have been many distinct groups among the workers, such as clerks, soldiers, artisans, road-menders, and tillers of the soil. The simple analysis, however, has been quite enough to show, what has seemed to need emphasis, that all the passions of social life, or rather of social caste, are brought to bear upon the profession of science, giving it the peculiar conceits and advantages of class or caste, and also imposing upon it the peculiar limitations. The advantages, among others, are the strength that lies in union, and the long continuity and the imitation that always ensure an accumulation of experience and a refinement of method and an attainment to impersonal, impartial standards; the conceits are exclusiveness, sense of sanctity or intrinsic worth, and consequent claims to aristocracy; and the limitations, although possibly already quite obvious, are hereafter to be pointed out. But whatever the limitations or the opportunities, it is now our chief concern that the social conditions of its rise must greatly intensify the abstraction of science, the treatment of the consciousness of the world, which is but the sphere of action, the totality of the manifested conditions of action, as something to be cultivated wholly for its own sake.

Nor is this fact that science is an abstraction, intensified by the conditions of class life, the only fact to which the rise of science bears witness. There is something else equally significant—something, indeed, so intimately involved in this as perhaps not

properly to be referred to as another fact at all, being only a further manifestation of what is already before us. *There never arises abstraction without duplicity.*

Plainly a disrupted society, such as has been seen to be incident to the rise of science, means also a disrupted life. In general the corporate life of any single class resulting from the division can be only partial, I do not say in respect to "real life," since this phrase has itself been associated with too narrow a meaning, but to human nature, to human life in its entirety, in its real fulness, in its true breadth and its true depth. All class life, I repeat, involving as it does disruption and selection of some particular interest or relation, is inadequate to any human being, and the life of science is no exception to this rule. Membership in any class and conformity to its peculiar life, which is partial and abstract as partial, have never satisfied anybody, and the life of the professional scientist, again, is no exception to this rule. Accordingly any abstraction in life, the isolation of any specific interest, when seen in just the light of its necessary inadequacy, of its definite, more or less exclusive partiality, must imply in life a demand for reality and completeness, and this the more as the abstraction is assertive, as the isolation is insistent. Simply, the whole life will never brook an untempered neglect from any of its always self-assertive parts. Plainly, however, as plainly as a disrupted society must mean a disrupted life for each resulting group, such a demand can be met only in one way, if the cause for it continues; it can be met only by some form of duplicity, by some way in which, however indirectly, the life of those

concerned will always really be more than it seems or will always actually imply what explicitly or formally it appears to exclude. No such narrow life, in short, as must always characterize any social group, can ever be without its compensating innuendoes or indirections for the life from which it is outwardly aloof, and while the peculiar manner in which the true reality and the wholeness of life are thus conserved will very naturally always be determined by the particular class or the particular class-character involved, being of one sort for road-menders and of quite a different sort for scientific observers, the organization of society seems bound at every turn to show that duplicity, compensation as it always is for partiality, is an indispensable condition. Duplicity, whatever may be its own special dangers, is always better, being nearer to reality, than narrowness.

Is not the road-mender also a good Catholic, or in some other way, conventional or unconventional, religiously devout, piously doing, not his own, but another's work? Does not the scientist give point to the idea of another and different life, that is to say, of his life of knowledge not being the whole of life, by the agnosticism which he not only carefully asserts but also actually embodies as a factor in his method? The road-mender slaves at his humble task, ignorant and yet trustful, believing in an infallible wisdom and an absolute power, and the scientist lives with great enthusiasm to know the world as it is, but tells us at the same time with no less enthusiasm and with a meaning that certainly ought to temper his exclusiveness that the object which he studies and describes

is nevertheless really unknowable. To quote Mr. Spencer: "The man of science . . . more than any other, truly *knows* that in its ultimate essence nothing can be known." Surely there is meaning for Stevenson's story of Dr. Jekyll and Mr. Hyde in other fields besides that of morality. Class life must always involve its members in a protective or compensating duplicity.

But now, whatever in the life of other classes this duplicity, which conserves the wholeness of life even when formally life is narrow and partial, ought to be called, in the profession of science it often goes under the name of dualism. Seen at different angles, it is now dualism, now objectivism, now agnosticism. In each of these different ways the scientist, quite outdoing or transcending his profession, recognizes a sphere of reality or a sphere of activity, that is beyond that of the knowledge which he makes his special business, and, as is very important to observe, the peculiar manner of his recognition of this sphere, or the peculiar character of his duplicity, is relative to just the abstraction which makes his science what it is. Thus his peculiar duplicity is one of conscious subject and unconscious, external object, of observing man and objective nature, of real knowledge and unknowable reality.

Yet here, before discussing further the relation of dualism to science, it is well to observe that the positive history of science justifies the account of its rise which has now been given. The age of science among the Greeks was coincident with the closing conflict between Greek civilization and the general life

of the Mediterranean, and the age of modern science began, not to attempt a long story, with the discovery of America. All "looking before leaping" is transitional or revolutionary, and while, of course, there had been transitions and degrees of scientific inquiry before, the science of the Greeks belongs to that very critical transition from Greece to Rome; and modern science, to the transition, certainly not less critical, from Christendom to—who can say to what? But not only does history show science to arise when there is a stream to cross; also it shows the life of the time, in the first place, to be sharply disintegrated, its different factors being separately and abstractly expressed through as many different social groups, and, in the second place, in each of the groups to be given to double living, to the storm and stress of being one thing and seeming another. Always an age, conspicuously and characteristically scientific, has been an age of clearly developed classes and of a general duplicity in living.

Thus, to give a striking, although possibly too philosophical an illustration of the duplicity, Democritus, the great materialist and atomist, and Plato, the great idealist, were contemporaries and equally were creatures of their day and generation, and their century was the century of great achievements in Greek science. Moreover, as regards the coincident organization of society, we know at least of Plato that he was keenly conscious of the divisions of society into distinct classes. And in very much the same way materialism and idealism, not to mention hedonism and rigorism, or naturalism and supernaturalism,

have been inseparately associated with the rise and the successes of modern science. These philosophies, it must be remembered, are always more than so many conflicting "isms." They are, too, more than the special conceits, in theory or in practice, of so many separate social classes or of the great leaders of these classes. In their very differences they are the definite, the "public" expression of a conflict, or division, that inwardly affects every individual member, whatever his class or profession, which the society contains. In the day and generation of Democritus and Plato were there not well-defined parties, manifest in all the different and separately organized phases of life—moral, industrial, political or religious, namely, the parties of the conservatives and the radicals? And were there not also, as typical individual characters, each of them revealing to everybody something present within his own life, the only conventional loyalist and the more truly loyal reformer, as well as the idle or careless transgressor and the coldly calculating traitor? A life so divided and so variously impersonated was certainly teeming with duplicity.

Nor have we yet finished with the evidence from history. An age of science has always been not merely an age with a stream to cross, nor yet merely an age of classes and double living, but also an age of a thoroughly conscious utilitarianism. Whether materialistically or idealistically, all things have been treated and also looked upon as means to some end, not ends in themselves. For the disrupted society all activity has been more or less consciously calculating and instrumental. As we know, the disruption means

actual, when not also intentional, division of labour, and surely there never has been division of labour without eventual development of a distinct sense of the various special instruments and activities as utilities rather than things of intrinsic value. For a time, it is true, the several classes and their activities may maintain the semblance of conservatism and independence; but their inevitable duplicity is bound sooner or later to give a consciously conventional or utilitarian character to the conservatism, and just this makes the activity of the people instrumental or only mediately instead of immediately worthy. If, as some are sure to contend, the division of labour always tends to end, and often does end, in the formation of castes, and in consequence the instrumental character of the activities is forgotten, it needs only to be said in reply that an invitation is then given to some outside power to step in and to make use of, instead of just treasuring or hoarding, the developed instruments or utilities. Caste in the organization of society not only induces absolutism at home, but also, and in this way is fully revealed its real but suppressed utilitarianism, invites conquest from abroad. The days of Greek science were, almost notoriously, days of conventionalism and utilitarianism: witness the Sophists and their teaching, and the life which they waited upon for pay; while the surviving conservatism, by which, as cannot be questioned, the life of the time was blind to its own real mission or purpose, made possible and even historically necessary, first, the Macedonian, and then the Roman conquest of Greece. What the Greeks, being too conservative, though

utilitarian, failed to make full use of, another people, less hampered by tradition, finally appropriated. And as for the days of modern science, these, so far as unfolded to our view, have not been unlike in kind: witness the Machiavellism, with which they began, and the spirit of commercialism, which has characterized them throughout.

One thing more, too, from the facts of history may have our attention, although possibly this addition is quite unnecessary—the fact, namely, of scepticism coupled always with a hopeful curiosity. A disrupted society, dividing the labour of human life, is as sceptical as it is conventional, and as given to experiment and exploration, which are never without their sense of mystery, and even to conquest, never without its risks, as it is utilitarian. Was it curiosity or mere Hellenic conceit, the sense of adventure or the mere dogmatism of a Greek, that took Alexander abroad with his armies, or that earlier turned the attention of Athens to the possibilities of the West? And which, curiosity or religious and political propagandism, a pagan greed or a Christian piety, inspired the Western and Southern voyages of the fifteenth and sixteenth centuries? Which gave rise even to the Crusades? It would be interesting, if our present purposes only warranted the undertaking, to trace the forerunning conditions of a period of scientific endeavour. We could then show both how scientific curiosity has developed as but one expression of a general interest in experimental endeavour, in adventure and in conquests of all sorts, and especially how this interest, with its mingling of doubt and con-

fident seeking, has been preceded by a period of art. Art, appeal as it always is from the human as expressed in the established ways of some given social organization to the natural, shows a people sensitive to a mystery, a real but unseen end, in its developed activities, but not yet willing to let the experimental and instrumental character of those activities have free expression. It appeals to the natural, which is of course the sphere of all adventure, but, still cherishing the human, it never gets, so to speak, out of sight of home. Science, the successor of art, shows home, that is, the human and the subjective, left far behind. But to follow out the line of thought here suggested would take us too far afield. Let it suffice, then, that we see these two things: how historically and socially the investigations of science, whatever their relations to an antecedent art, such as that of the Greeks or of Christendom in the Renaissance, are but an incident within a general life of appeal to nature—that is, of exploration and conquest—and then how the scepticism, involved in the inquiries of science, is intrinsic to a life that, for reasons now clear to us, has become both conventional and utilitarian, both formal—or unreal in itself—and consciously only instrumental. The first of these brings to mind what was referred to in a previous chapter, that science is man in his doubt seeking the companionship of nature; and the second will aid us greatly in understanding the attitude and method of science, to which, having the evidence of history, we have next to turn.

We have found the rise of science to imply a general abstraction of the various factors in human

life, and to be itself, in particular, the abstraction of the consciousness of nature, nature being the totality of the manifest conditions of life. This abstraction has been developed and intensified by the formation of distinct social classes; and, in the special case of the consciousness of nature, by the formation of a class of scientists, so called, who cultivate their science for its own sake. We have found the rise of science to imply also a general duplicity, evident within the field of science in what is known as dualism. Duplicity is a natural accompaniment of all abstraction, and it has, as we saw at least in part, a certain protective and corrective function, which both the logic of experience and the social and historical conditions of its expression and development warranted us in ascribing to it. And, finally, we have found that in actual life abstraction and duplicity make activity conventional and utilitarian, that is to say, consciously instrumental or—let me now say—experimental. In just these conditions, then, the general abstraction and duplicity, the conscious formalism and regard for utility, and the sense of experimentation, we have the determinant, formative influences of science's attitude and method, for any given set of conditions always makes the method with which the conditions themselves are met. Socrates, with his method of cross-questioning so fatal to all ideas that should give knowledge any visible form or resting-place, was but the spirit of his time, the spirit of radical inquiry become incarnate and assertive in public places. He was but a visible, public exponent of the critical examination of life which the self-consciousness of his time made neces-

sary. Indeed, no organic form, no living creature, ever reflected the character of its environment more fully, or more successfully effected an adaptive life than the method, with its searching questions, and its subtle, logical gymnastic, of that honestly and radically inquisitive Sophist. And the standpoint and the procedure of science, in respect to the relation to their environment, are closely comparable with the method of Socrates.

Thus science seeks a complete abstraction of the looking consciousness, and then with a timely duplicity it looks to a wholly external, natural world. So in the field of its peculiar abstraction does science take the character and colour of its surroundings. But, further, it presumes upon the peculiar forms and conditions of its subjective, looking consciousness, the activities of the mind, being mediative or instrumental to the presentation of the external objective world, and it uses also the activities of life at large, both the bread-and-butter activities and the mechanical inventions, both the political and the industrial organizations, as supplementary aids to its observations; for just science, the looking consciousness, is the end, and this end is presumed to justify every available means. So, again, does science take the cue from its environment, expressing in its own way and to its own purposes the general experimentalism; and this the more significantly when we remember that, besides being experimental, treating the mind as an instrument and life's activities at large as only aids more or less directly pertinent to the mind's work, it is agnostic. Its peculiar agnosticism not only reflects

its duplicity, as was before suggested, but in addition shows how very abstract its knowledge is, and—I know no better phrase—how timelily adventurous. A time of science is a time when all things final are beyond; yet also, when all things present, however mysteriously, are really leading yonder.

Further, science always divides the field of its operations, and so, besides greatly compounding its abstractness, reflects in its own way, or, as it were, projects on its own plane, what I will call the specialism of the contemporary social organization. There is division of labour in this, but there is also a difficulty, which, among other difficulties, is hereafter to be considered.

And there is, finally, one more characterization of science which is suggested by the conditions of its rise, but by something in those conditions not yet brought into clear view. An age of science is an age of a rising, although perhaps formally suppressed and disguised individualism, and quite in sympathy, the method of science is "inductive," science, though interested in classification, always having regard for the natural rights of particular things, of single individuals, reasoning from the particular to the general, as the phrase runs, not in the reverse order. Individualism has been a much misunderstood thing, be it a social movement or a logical condition of inductive thinking. The individual as person or as objective datum has been greatly abused. But at least for the present, waiving any discussion of the true character of the individual or any protest that the individual and the definite or particular must not be confused, I would only assert, but I venture to assert

strongly, first, that behind the conventionalism and utilitarianism of the life of a society divided into distinct classes, behind the abstraction and the inevitable duplicity, behind the sense of experiment and adventure, the individual person is the real power, and secondly, that in induction science has only translated this real individualism of its time into an attitude or method for the conduct of its looking consciousness. In this way, as in those other ways, has science been educated to its peculiar manner.

We have thus seen how science arises, and how its rise gives it a certain character. But already suspicion of limitations in the view of science, and so of a case for doubt with regard to it, has come to us. Abstraction and duplicity both suggest limitations, though these may not be unmixed. What the specific difficulties are, however, and how far they really justify our doubting, must be reserved for the ensuing chapter.

CHAPTER V.

THE VIEW OF SCIENCE: ITS LIMITATIONS.

LIMITATIONS or opportunities? Error or truth? In the familiar illustration the tracks which limit the locomotive to a certain course are essential to its successful movement, and something of the same kind may be true of science. A man's vices and virtues are never really far apart, and, again, the same may be true of science. But for the moment we are to approach science from the standpoint of its limitations; we are to see how its own natural ideals, as suggested by our characterization of the scientific view, are evidence of its inadequacy. So doing we shall take a most important step towards a thorough-going confession of doubt.

Among scientific men it is a commonplace that for accuracy and genuineness or purity, that is to say for complete abstraction, science must be (1) independent of "life," all the subjective interests, whether personal or social, the interests of politics, industry, morality, or religion, being science's most unsettling influences; (2) specialistic, the "Jack of all trades" in science being anything but *persona grata* among scientific men; and (3) agnostic or "positivistic," all con-

ceits about what is beyond positive experience, and even all dogma about what seems really present to experience, being most arrant heresy; and every one of these ideals, besides being derived from the habits or instincts, commonly unrecognized and unappreciated, of the ordinary consciousness, is wholly in accord with the conclusions of the preceding chapter. The attitude of science, as there disclosed, involved a looking to an external world—the objectivism; a division of the field—the specialism; and an experimental, adventurous mind—the agnosticism or positivism. It involved other things, too, but these three are now selected, so to speak, as three determining points of science's circumference. Consideration of them, to whatever results it may lead, should meet all the demands of the present task. As for the results, these will show fundamental difficulties, very like to those of ordinary experience, to lurk in each one of the three ideals. The scientific consciousness is abstract and just for being in consequence objectivistic, specialistic, and agnostic it is artificial and unreal, though perhaps only relatively or not unmixedly unreal, and especially it is honeycombed with paradoxes and contradictions, with the translated but not transcended contradictions of ordinary life.

To the examination, therefore, of these difficulties, or limitations, we must now turn, taking the three ideals in order.

I. SCIENCE WOULD BE OBJECTIVE.

The ideal of a purely objective science is in many ways a great delusion, for it may effectually blind

science to its necessary subjectivism, so far as it gets any substance or content, and to its necessary formalism, so far as it acts upon a merely external world. With regard, for example, to the last point, just so far as the ideal of objectivism is realized, science becomes merely so much technique. By technique here is meant everything that makes scientific work purely mechanical. A purely mechanical procedure is the inevitable, the natural and necessary method of a pure objectivism. Scientists have their formal etiquette about pre-empted problems or fields of research, their notions about originality as dependent merely on working a new field—hence the pre-emption to prevent transgression or theft of originality, their conceits about bibliographical information, linguistic proficiency and technical phraseology, their satisfaction over "publication," "contribution," "production," and "research," and an almost Gaston-Alphonse deference of each to each among the different branches of scientific inquiry; and under technique all these things, as well as the more familiar matters of method and apparatus and material, are here included. Physicians, we are told, and not infrequently also their patients, suffer from a professional ritual and etiquette, but they are far from being alone in their misery. Scientists, would-be objective scientists, and all who appeal to them, are a close second. Technique must have its real uses, but plainly it has its limitations. It is one of the enabling conditions, a *sine qua non* of science, if science is to be objective, but it takes the life out of science. A science that gets no further, that is only "objective," that is, "pure" and "in-

ductive"—is wholly vain, being like a domestic animal which is only a pet, or rather like a vigorous plant that runs luxuriously to leaves, never bearing either flowers or fruit. Its much vaunted observation and experiment may fill a good many pages and a good many volumes, but material, even material in books, and experiments, even carefully, minutely reported experiments, are neither roses nor apples.

A fruitful science relates itself to something more than a mere independent object. A fruitful science involves synthesis, not formal, but real synthesis, as well as analysis, its decomposed object being also only the separated details of some organizing activity. Indeed, however unconsciously, or even however against its own avowed interest and desire, science has that organizing activity in the real life. The "real life" has seemed aloof, but science is truly an integral part of this life. Science's very genesis in social evolution, in spite of, nay, even because of its abstraction by a distinct class and the assumption of a professional garb, is witness to this relationship. Again, fruitful science is practical invention, not abstract discovery, and the real life of a person or a society or a race is as important to it, as much a warrant of its conclusions, as any object, however mathematically described or describable, with which science was ever concerned. As for the thing invented, the tool or the machine, in general the instrument of adaptation to environment, this sometimes takes visible, wholly material form; sometimes it appears as a method in the practical arts or in the fine arts or in education or government; sometimes it is only an

atmosphere or point of view, a habit of mind; but whatever it is, it is useful, incalculably useful, and its invention as something that is widely distinguished from mere receptive observation, if this be even possible, or from mere accurate description, is science's primary justification.

But this, objects somebody, is sentiment, and sentiment of the sort that quite destroys science, making real science, serious and accurate science, quite impossible. Well, it does of course dispense with a purely objective science. It suggests the idea, perhaps the uncomfortable idea, that, as in some other departments in life, so in science, death is a condition of success. Science must die to its objective self before it is saved; it must lose its whole world to gain its own soul. Or, to put the same idea differently, if the assertion be not too much like verbal play, a subjective science is not hopelessly unscientific. Is a man less interested in having a proper edge on his razor because eventually he must use it on himself? Nothing but a keen edge can ever ensure a "velvet shave," and nothing but the truth, the more accurate it be the better, can ever set anybody free.

Still, all questions of sentiment or of sharp razors or of the accuracy that liberates aside, we can get support for our scepticism about a science that, if purely objective, must be also empty and mechanical from science itself. The consistent evolutionist is obliged to deny pure objectivity to any scientific knowledge, just as in general he is obliged to think of all consciousness as never something by itself, but one of the positive conditions of organic development. To

be an evolutionist, and at the same time to think of consciousness as only an external ornament of life, or in its higher development as the exclusive privilege of a distinct class, to think of it as an aside in life, perhaps a sudden result without in any way being also a condition of development, to suppose science to be solely objective and for its own sake, is nothing more or less than simply to stultify oneself completely. Even for the historian, whether avowed evolutionist or not, whose great business is to remind us that what is here or what is now is not all, the devotion to science for its own sake, which also in other times has possessed the minds and hearts of certain men, can be at best only a local and a passing phenomenon. Finally, apart from the standpoint of evolution or history, it is to be said that human society at large is sure to resent what may be styled the aristocratic temper which pure, objective science is all too likely to acquire from the exclusiveness of its ritual or technique, or say from its abstract and academic dress, and the resentment of society is important evidence always. Aristocratic temper, whatever its direction, is certainly as desirable in social life as it is necessary; it is incident to the development of all institutions—political, ecclesiastical, industrial, ceremonial, educational, and, to add to the familiar list, epistemological; but the resentment which it is sure to awaken is not one whit less serviceable to society, ensuring as it does, among other things, the extension of science, the translation of science into life.

So, to gather the threads together, two difficulties

have now appeared as affecting the objectivism of science. The first, that of burial in technique, gave us our starting-point, and the second has come to light with discussion of the first. Thus, not merely is a would-be objective science, through its bondage to technique, made formal and empty, but also, as perhaps only the other side of the same truth, a would-be objective science materially—that is, for its scientific doctrines—and formally—that is, for its motives and methods—is always in practice dependent upon the demands and sanctions of real life, and so not purely, or not dualistically, objective after all. There is, in brief, no other conclusion. Either science must be empty, a matter merely of dead rites and dry symbols and irrelevant ideas, or it must be pertinent and practical; and, if the latter, its boasted independence is gone. A purely objective science seems to get only subjectivity for its pains.

Yet this conclusion is easily misunderstood. It is far from denying any meaning to such words as object or objectivity. The object is denied only as an external independent existence. The object still remains to experience as possibly of mediative value to its beholders, mediating between the actual in their life and the possible, between the partial life and the whole life, the old and the new, the social, which is always narrow, and the personal. The whole must be always "objective" to the part, the possible to the actual, the personal to the social; or, conversely, the "objective," natural world can be only the convincing witness to the part or to the actual or to the social, not that there is an independent, wholly external world, but

that there is a whole or a possible or a personal. "Truly, we are all one," writes Fiona Macleod. "It is a common tongue we speak, though the wave has its own whisper, the wind its own sigh, and the lip of man its word, and the heart of woman its silence." We are all one. Man and nature, which man beholds, or the subject and the object, of which the subject is conscious, are one; but an objective science would hide this from us, not tell it to us.

But besides burying science in technique, and besides involving it in an only disguised, albeit a socially significant subjectivity, the ideal of wholly objective knowledge has also made science conservative in a way that must have peculiar interest here. Reference is not now made to the double truth or the double life which an objective science sanctions so cordially that men can hold so-called advanced scientific ideas without feeling them in any serious conflict with the traditional teachings of religion and morality, but to something else perhaps not wholly unrelated to this, and certainly not less suggestive of contradiction. While science is commonly supposed to be advanced and radical and up to date, if anything is, it is so only in a way which calls for a very important qualification, for it manages to perpetuate, not indeed the letter, but the spirit of old views. At its best a purely objective science can give only a new material content, or a new arrangement perhaps of an old content, to existing and time-worn forms of thought; it cannot possibly do that in which real progress must always consist, namely, develop, recognize, and adopt new forms of thought, new categories;

it cannot do that without betraying its own ideal of mere objectivism. Objective science—to give a commonplace example—has said relatively to a certain doctrine of creation that spirit did not precede matter, but instead matter preceded spirit, and—except for the excitement of the drawn battle which such a startling declaration has precipitated—this can hardly be said to have involved any great advance. Cause and effect have indeed been made to change places by the new deal, and perhaps in common fairness it was high time that a change be made, but no new conception of causation itself has been recognized. The new creationalism, the materialistic, has no essential advantage over the old. Again, while deposing the First Cause, an objective science has made all things causes after the same plan—individual, arbitrary, antecedent causes; and this is only to multiply indefinitely, perhaps infinitely, the offensive creationalism. "Not so," says some one; "there is a splendid democracy in it, and it implies a great deal more than mere multiplication. Indefiniteness, or at least infinity, transforms anything or everything to which it is applied. By making all things causes one forces into science the important principle of the equation of action and reaction, everything being seen as acted upon as well as acting, and this principle, as if by turning creationalism fatally against itself, yields a new standpoint, that of mechanicalism." Granted, and granted cordially, but has a purely objective science any right to change its standpoint?

Possibly this does not mean very much. Then approach the matter from another side, risking a

reference to one of science's pet conceits, the "question of fact." It has been for science a question of fact, of mere objective fact, whether matter made mind or mind made matter; whether this or that thing is or is not a cause of some other thing; whether certain very low, perhaps unicellular organisms show purpose in their activities or do not, are gifted with a natural tendency to social life, a real interest in their kind, or are not so gifted; or—to take just one more case—whether the changes in the brain that precede bodily movement are or are not directed by consciousness, consciousness being in one case in causal relation with the brain, and in the other only an idle, external accompaniment, an "epi-phenomenon"; but in each of these questions of objective fact we see the scientist only standing in his own light, obscuring the view of what above all else it is important to see. Are mind and matter, cause and effect, purpose, society, brain-processes and consciousness such well-established conceptions, are they such independent constants in the scientist's formulæ, that wholly uncritical questions of fact are all that one needs to ask about them? Why, when one really thinks about it, to assume, as the questions of fact of an objective science are made to assume, that anything either is or is not something else, is about as blinding and ill-advised as could well be. It has the pleasing form of open-mindedness, but only the form. It is very much as if some earnest, yearning truth-seeker should exclaim: "I would see clearly; therefore I will not open my eyes." No doubt it keeps the scientist busy, eternally busy, dealing and redealing his facts or data, as busy indeed as the play-

ful cat that so hotly pursues her own tail, but it does not contribute much that is positive and progressive. The very best that one can say for it is that it turns the kaleidoscope of human experience, leading as it usually does to a new arrangement of hard, unchanging things. To the question, for example, about lower organisms showing purpose or social feeling in their activity, the scientist, after most careful experiments, may answer in the negative, and be quite emphatic in his answer too; but almost at once he—or some one for him—will appreciate that mankind, when scrutinized and experimented upon in the same way, under the same instruments and through the same laboratory methods, is similarly deficient; and then, somehow, the wind is taken out of his sails, since social feeling and purpose refuse to be so easily disposed of. In this case, as in all cases, the question of mere objective fact simply returns, as importunate as ever, for another reckoning, with Shelley's cloud silently laughing at its own cenotaph.

And what is the difficulty? Once more the difficulty is in the assumption, so natural to an objective science, of fixed conceptions. Are purpose and social feeling so fixed in their nature, and above all so well understood, that their presence or absence can be established by an experiment or two or ten thousand conducted on strictly objective principles? No conceptions are fixed, and instead of questions of fact we should have, what a strictly objective science cannot have, questions of meaning. Thus, not: Are low organisms, or any organisms, social or purposive? but: What, if anything, do the processes of their

lives testify as to the real nature of society or purpose?

The conservative character of objective science, or the view-point in its question of fact which the conservatism determines, is the chief source of the negative attitude of science so familiar to all and so often an object of complaint. To take, perhaps, the most widely interesting case, for science to suppose that God either is or is not—because he must either be or not be the particular thing men have thought him—is to beg the theological question altogether. Indeed, for this question of God's existence and for any other question of objective fact a negative answer is almost, if not quite, a foregone conclusion, since the very putting of the question is, *ipso facto*, evidence that a new idea of the thing inquired about—of God, perhaps, or purpose or society—is at least just below the horizon of man's consciousness, and so that the old idea has already lost its validity. Nothing ever is where you seek it, or what you seek in it, for the simple reason that your conscious seeking has changed it. Why, then, look—perhaps with a telescope after a God in the skies—for what you should know you cannot find? Why despair when a question meets a "no" of its own dictation? The real questioner lives in a living world, in which all things change and die, yet only for rebirth, while the "objective" questioner simply cannot see that the negative of his answer can be only relative to what is already passing.

In so many ways, then, a would-be objective science is open to criticism, and affords in consequence a cause for doubt. Only subjectivity can make it fruitfully

and worthily scientific. Only a change in the form of its question can make it substantially as well as formally progressive. Only a tempering of its negative answers to a merely relative meaning can make it honest. It is looking at what is not, and in a way which is artificial, and it sees everything only in the clear light of its own shadow. Surely to be scientific is human; to be objective is to rival the lover's unselfishness.

II. SCIENCE WOULD BE SPECIALISTIC.

But, secondly, there is the scientist's ideal of specialism, which is at once not less earnestly cherished and not less strikingly at constant war with itself. What specialism for science means is known at least in a general way to everybody, and that an objective science must be made up of numberless independent inquiries needs only mention, since the objective world, if really innocent of all personal or subjective relations, is necessarily manifold and discrete, being made up of a number of wholly separate details, and being approachable in every one of its parts from a number of wholly separate standpoints. The objective world apart from a subject is like a workshop without a workman—a collection of unused and so unconnected tools and materials each one of which may have an infinite number of uses; and the objective scientist views it very much as a stranger, perhaps a savage—may I be forgiven that mark—might view the lifeless shop, seeing now this thing, now that, but never the living unity of all the things. So, to repeat, as soon as the self or subject is removed and the world is turned objective, all things and all views of things must fall

apart, and science as the observation of such a world can be only "special." Not so clear, however, or at least not so commonly appreciated, is the peculiar fallacy and contradiction of specialism to which attention is asked here. Once more is science to be seen as in a sense standing in its own light, since it cannot be at once special and directly and literally true and adequate.

To begin with, specialism makes vision, the mind's vision as well as the sensuous vision, dim or distorted. It may even be said to induce a species of blindness or, as virtually the same thing, to create in consciousness curious fancies, strange perversions of reality, seen not with the natural eye at all, but with the imagination, always so ingenious and so original, and one might almost add so hypnotic, in its power of suggestion over the senses. In ways and for reasons neither unknown nor unappreciated by most men, specialism even closes one's eyes and makes one dream. It makes the specialist among physicians see his special ailment in every disorder, and every disorder in his special ailment, and this so truly that merely to consult him may be to fall his victim. True, he may never be, perhaps can never be, wholly wrong, and his transgressions, conscious or unconscious, have often helped discovery, but nevertheless his situation, not to say that of his patient, is full of humour, and always among other troubles he is under the error of partiality or one-sidedness. And in science generally the specialist always does and always must dream. His dreams may be waking dreams, but he is always transgressing his own proper bounds without ever

clearly comprehending that he has transgressed. Nor, be it admitted, can this necessity of dreaming be a wholly unmixed evil to science. However unfavourably it may reflect on the final, literal validity of any special science, it only shows nature, or reality, preserving her unity against the attempted violence of specialism. It shows that in spite of the specialist being all eyes for his own peculiar object, the mind that is within him and that is above all else—such, apparently, is the nature of mind—responsible not exclusively to the special and sensuous, but to the all-inclusive and essential, and is therefore bound to conserve for experience the interests of an indivisible universe in every particular thing, leads him, devotee that he is, patiently repeating his sacred syllable, into most wonderful visions. For the sake of inclusiveness and reality his mind projects his would-be special consciousness into regions of strange subtlety and marvellous logical construction; as Oriental priest or Occidental scientist he is a specialist, yet not without a mind, or a real, ever-present world, which refuses to be special, and as he dreams he comes to see, yet knows not that he sees, the whole universe. A seeing blindness, then, is this specialism; a monomania too, but, of course, conventional and respectable.

Mathematics and physics and chemistry and biology and psychology, not to say also the social sciences, all depend upon the far-seeing mystical visions of the mind, if not of the eye, upon the subtle, logical constructions which their would-be scientific specialism, their desire to know all things narrowly, forces upon them. Each one may be special, but each as it

gains precision and as it becomes truly an account of the facts, under the guidance of an exacting mind that at any cost must present the whole to consciousness, conserves within itself the common universe of them all by developing under what is called the "scientific imagination" all sorts of indirections, disguises, abstractions, logical constructions for the things and view-points of the others. Each to be veracious has no choice but to be also voracious, and when, for example, a physical scientist insists on seeing his world only physically, while in reality it is of course, to say no more, a world of chemical process also, and even of vital and mental character, he is sooner or later constrained to admit to his thinking what above were called abstractions or logical constructions, but what also pass under the name of "working hypotheses." These are formally true to his physical standpoint, but any outsider in order to explain why they are hypotheses that *work* must call them compensating or conserving conceptions—in short, logical constructions that are, or that in part involve, substitutes for the neglected points of view, being, as it were, the secret agents of a universe refusing to be divided. To characterize them in just one more way, a science's working hypotheses, results as they are of science's blind but brilliant dreaming, many or all of them, are doors in the panelling by which the other sciences are quietly admitted to a room seemingly tightly closed to all comers. Every science, and this the more as it becomes scientific, must entertain all the others, however unwittingly. Tennyson's "flower in the crannied wall," so often plucked, is nothing in all-

inclusiveness when compared with a well-developed special science. No science, physical or psychical, biological or social, ever does or ever can live to itself alone. It may will to, but it does not and it cannot. All the others live with it and for it—nay, they all live in it.

Yet in actual practice, what are these working hypotheses that work because they are compensating conceptions or doors in the panelling? No veracity without unrestrained voracity is interesting as a formula, but how verify it? Verification, or illustration, is now imperative. Illustration, however, is very difficult for a reason which the scientists now on trial must allow me to mention. The scientists know too much about the sciences, or at least of them, while I know too little. Still, as too much knowledge is often the source of obscurity, and so only a form of ignorance, my situation is not altogether hopeless. Thus, while it is true that the scientists are likely to insist, even in the face of a mind bound to preserve the unity of an indivisible universe in all the varied studies and conclusions of science, that physics is only physics and chemistry only chemistry and biology only biology and psychology only psychology, and while also all illustrations must come from the field of their special studies, and may therefore only set them more firmly in the wilful blindness of their specialism, still the principle of a conserving mind, or an eternally conserved truth or an indivisible reality, is a disturbing influence which they cannot evade. Then, too, I am forgetting and allowing them to forget a very important fact in scientific work to-day. In these

times the running together or merging of different sciences, as if through something of the nature of a chemical reaction, is a very familiar phenomenon. It is as familiar, although not so loudly heralded, as that of the railroads and industrial companies; and it has been taking place with such persistence and confidence as actually to suggest a natural affinity, each of the sciences involved having the rich experience of discovering itself already in the others. This fact, then, must make illustration less difficult, since, in a way that must appeal to the scientist as no merely theoretical considerations can, it proves or goes very far toward proving what is to be illustrated. Moreover, specific illustration is hardly necessary in the sphere of the different physical sciences, or again, in that of the social or the psychological sciences, for within each one of these groups the affinity but just now referred to has been very clearly exemplified, as in the interesting case of physics, chemistry, and mathematics, which nowadays are one science, not three, and which can be held apart only on methodological grounds, not metaphysically. Illustration, accordingly, appears, after all, to be needed only for the specialism that separates the physical and the psychical sciences.

Physiological psychology and physically experimental psychology, both of them suggestive of nothing less incongruous than seething ice, are sure to come to mind at once; but also there is a mathematical psychology, comparable with a developmental mechanics and biometrics in biology, and hardly a single field of science, however apparently distant and alien in nature and interest, has not contributed some-

thing to psychology or to epistemology, the general science of knowledge. But now it is likely to be objected by some one that just because sciences, whether in clearly related or in widely separated fields, are useful to each other, just because they can serve, as they do, in the rôle of methods of each other, they are not necessarily in any real and natural affinity. May not their association be purely one of utility, involving no surrender of special individuality and requiring in any case only temporary relationship? The question is absurd. Any means that really serves an end must have something in common with the end it serves; and, again, an end that really sanctions a means, whatever the means be, must itself be, at least potentially, which is after all to say essentially, in and of the means employed. Different sciences, then, even physics and psychology, or natural science and theology, cannot be even temporarily methods of each other without partaking in some way, under some disguise or other, through some peculiarity in their conceptions or in the relations of their conceptions, of each other's subject-matter.

In view of this fact of mutual participation of nature and idea among the sciences that use each other, I have myself conceived, and in another place have given expression to, what appropriately may be called a physical psychology or epistemology.[1] This new hybrid science is especially concerned with nothing more nor less than those substitutes, disguises, or

[1] See an article: "Epistemology and Physical Science—A Fatal Parallelism," in the *Philosophical Review*, Vol. VII, No. 4, July, 1896.

indirections, really present in all the physical sciences, for the peculiar nature, for the peculiar sort of unity, intensive instead of extensive or qualitative instead of quantitative, or say also even vital and spiritual instead of physical, which is always associated with mind. In conservation of matter, energy, what you will, in plenitude, in motion as only relative and so as always under a principle of uniformity and constancy or even immobility, in motion too as inclining to vibration, which suggests poise or tension, or to rotation, in which we see rest as well as motion, and finally, not to extend what might be a long list, in the infinity of space and time or of quantity, the physical sciences have hidden entrances for the silent, usually unnoticed admission of what is psychical. But I may seem to be jumping too far, to be presuming too much. Then put the case in this way—not quite so direct, but to the same goal. All of these conceptions, so necessary to a "working" physical science, need very little examination to be seen to be treacherous to the physical standpoint and its peculiar categories. One might as well try to make water unsupported assume definiteness of form as to conceive the conservation of energy or plenitude or the relativity of motion in the character of what is physical, or at least of what is properly and conventionally physical. Being treacherous, then, to the physical science that has conceived them, they are, as was said, doors for what is not physical; hidden doors, perhaps, but certainly doors to be opened at will; and by them mind is bound to enter the physical world and its sciences. To those familiar with the history of philosophy, the specula-

tion of the early Greek thinkers, notably Anaximander, Parmenides, and Anaxagoras, will afford illustration of the physical view running, in spite of itself, into treacherous conceptions, and eventually reaching the discovery of their treachery and with it the idea of mind or *Nous*.[1]

So for science is the material world, what properly it is often said to be, a sort of dark mirror of man's inner life, of his psychical nature. Physical science as consciousness of the outer material world is not, and has itself shown that it cannot be, merely and exclusively physical. By virtue of its working hypotheses, which are as secret doorways, it is psychical also. Though darkly and indirectly it is our human self-consciousness. Perhaps it is our self-consciousness rendered impersonal or the self seen through the mirror of not-self or through the disguise of what a photographer would call a "negative"; and, if it may be so described, we are reminded of Burns:—

> O wad some power the giftie gie us,
> To see oursels as others see us!
> It wad frae monie a blunder free us,
> And foolish notion.

Only the bonnie Robert himself was too much of a specialist in poetry to see that natural science was the very thing he prayed for.

And just as there is thus a physical psychology, so

[1] See articles: "Pluralism: Empedocles and Democritus," in the *Philosophical Review*, Vol. X, No. 3, May, 1901; "A Study in the Logic of the Early Greek Philosophy—Being, not-Being, and Becoming," in the *Monist*, Vol. XII, No. 3, April, 1902; and "The Poetry of Anaxagoras's Metaphysics," in *The Journal of Philosophy, Psychology, and Scientific Method*, Vol. IV, No 4.

in like manner there is a psychological or epistemological physics, which in its turn is concerned with the indirections, or doors in the panelling, present in all the psychical sciences, for those very physical things quantity and matter. The devil will have his due; even an optimistic theology has to recognize him. And psychology has a sensuous self, the self of the purely sensuous consciousness, which has always involved it in a curious psychical atomism, a projection, in a word, of the physical on the plane of the psychical. Sensationalism, too, as a psychological theory in the history of thought has always been associated with materialism.

With regard, then, to the separation even of the psychical and the physical sciences, which obviously has at its base the distinction between mind and matter, we observe that our principle of affinity and mutual participation still holds. By a sort of projection or reproduction mind and matter both appear, the one openly, the other in disguise, in each kind of science. However unawares, the physical entertains mind; the psychical matter; and specialism, so far as standing for anything more than scientific method, has to withdraw from its last stronghold. The very dreaming of the scientific imagination is its undoing.

For other evidence against the integrity and adequacy of specialism, showing how mind defies specialism and conserves its indivisible universe, there are the following simple but certainly interesting facts. All the different sciences, however special and however apparently alien in subject matter, are wont to use the same general methods—as, for example, the laboratory or experimental method or the historical

method, the fatal consequences of which to the cause of pure specialism may easily be inferred. History is famous for overcoming differences. The common interest in mathematics must also be mentioned, for mathematics, through its latest developments in danger of turning into a pure logic, is quite independent of all those material differences that separate the different sciences. It is formal and universal, not special; so that the special science that would also be mathematical appears somehow to be at least in aim as universal as it is special. Perhaps mathematics more than anything else has fed the voracity which we have seen veracity to exact. Has it not been the chief agent in the virtual annihilation of the barriers between physics and chemistry? This particular mingling of the special sciences has been mentioned here already, but mathematics is threatening the party-walls of all the other sciences also. Further, what are we to infer from the idea that all sciences seek law? Certainly law is not special as science has seemed to be. Somehow law is not many, but one. Many laws can only be different phases or cases of one law. The very essence of law is to be one and single and all-embracing. To put the case theologically, could any one suppose that God made the laws of chemistry and sociology and psychology as so many separate and independent enactments? On such a supposition he had been a strange God indeed, lacking the very thing, unity of being and character, which men have come to associate with divinity, and what theology demands of God, science, even against its own specialism, must demand of its object. Again,

the way in which by implication, when not openly, one science is given to handing over its hardest problems to another is very instructive as well as amusing. Not many years ago I was present at a joint meeting, a good-natured and doubtless honestly ambitious conference of biologists, physiologists, and psychologists, and the addresses then made have often reminded me of one of Thomas Nast's famous cartoons: A closed ring of political grafters, none other than the notorious Tweed and his followers, each pointing to his neighbour and putting on him the responsibility of a very embarrassing situation. "Find the rogue" was the artist's inscription; but with apologies for the association, we can easily change it to "Find the special science." And, lastly, in this list of the simple evidences against an adequate specialism there are the conspicuous analogies other than those of common method or common interest in law, which are always easily traced among the sciences, even the sciences in the opposite camps of matter and mind, of any particular time. Atomism in physics is contemporary with atomism in psychology and with individualism in political philosophy; a monarchical politics with an anthropomorphic, creationalistic theology and an also monarchical physically centred astronomy, whether heliocentric or geocentric; and a Newtonian astronomy, which really makes a law or force instead of an individual body the centre and control of the solar system, with democracy or constitutionalism, and with inductive instead of deductive logic and naturalistic instead of dogmatic theology; so that at no time, whatever the scientist's special interest, whatever his

special syllable, can he fail to have at least a formal sympathy with others. Such analogies among the sciences, so often recognized and so absorbingly interesting to the students of the history of thought, if not exactly doors in the panelling, may be said to make the panelled partitions at least translucent if not unsubstantial and transparent.

But the most important fact in illustration of our case against specialism is yet to be considered, and unfortunately it takes us where to some the waters may seem dangerously deep. Not only for reasons already given and emphasized is the special science a misnomer, a contradiction in terms, except in so far as specialism be taken merely as an incident, not without its humour, of scientific method, but also for the same reasons (and chiefly because the truth and reality of the universe are bound to be conserved) every special science must sooner or later develop its doctrines either into direct paradoxes or into tenets that oppose and contradict each other. Thus, as has been shown, specialism in science is itself a paradox, and, as now asserted, every special science assuming precise form and real validity becomes a home of paradoxical or contradictory doctrines. Indeed, these doctrines just through their opposition appear be the most effective agents of that compensation for neglected points of view, or conservation of all points of view, which we are insisting is for ever forced upon the scientific specialist. In the cases of physical epistemology and epistemological physics we have already seen doctrines working to this end. In those cases the real treachery to the avowed

standpoints lay in virtual when not open contradiction. And, for the general principles, is it not quite clear that nothing so surely as contradiction in any given point of view, or in the specific doctrines developed under it, can serve the interests of any other points of view? I have heard it said, but by whom originally I do not know, that a paradox or contradiction was only the mind on tiptoe struggling to look over a very high wall.

The point is just this. The special science, because special or partial and because at the same time courting scientific character or validity, that is, conformity with reality, must be relative, formal, abstract, artificial, unreal, but also for exactly the same reason it must contrive to admit to its conceptions other view-points than its own. Its own peculiar view-point is relative, but that it may attain actual validity it is bound to overcome its relativity by admitting, secretly perhaps yet not less truly, other points of view; and paradox or contradiction is the natural door for such admissions, the original view-point being tenacious to the last. Physics says: "I will be physics through thick and thin; I will be physics though the heavens fall and though dreadful paradoxes arise"; and in like manner psychology cries aloud: "I will be psychology though I suffer from a splitting dualism for my pains." Have you, gentle reader, never held and held and held to some particular notion about things, modifying the details perhaps little by little, but always imagining yourself strictly loyal to the old, old view, and then suddenly discovered your consciousness alive with contradictions? If you have, you know, possibly

too well, the natural history of every special science, and also you can sympathize deeply with the hen and her cherished chicks that proved ugly ducklings. The special science, I repeat, must be hospitable, however grudgingly, to strangers, though at the expense of becoming thoroughly divided against itself. Such hospitality is an obligation—call it logical if you will, or moral or metaphysical, for the name matters not if it only suggests coercion—which is not less binding upon the scientific spirit than upon the spirit of racial unity, always urgently present in you and me. You and I may be so special or exclusive as to drive strangers from our doors, but an impulse to call them back and give them entertainment always follows—an impulse that is only the necessary reaction of the expulsion. Humanity is indivisible in spite of our asserted exclusiveness, and nature is indivisible, too, in spite of specialism. Partiality of any sort, along any line, in any field, can never long persist without, though often darkly and indirectly, though by the way of bold, unrecognized, or unconfessed paradox, receiving from outside all that it would exclude. I am not merely repeating. At first, we saw only that the scientific imagination brought to the special science as its working hypotheses certain conserving or compensating conceptions; then, that these conceptions involved treachery to the science that harboured them; but now we are face to face with the fact that their complete, their most effective form is the paradox.

Would that I had the ability to write with the penetration and the clearness of statement that the

subject should certainly elicit, upon the strange equanimity with which mankind, in science or in practical life, receives and faces a direct negative or an open contradiction. Perhaps the habit of easy division into positive and negative, the ready resort to dichotomy, explains the mystery; perhaps the fact that negation or opposition is and can only be in kind, that there never is or can be any real change or need of change in a mere negation, is at least an important factor in the case; perhaps, again, the very hopelessness of the dualism, which a flat, unequivocal negation plainly involves, is also to the point; but, beyond all peradventure, we do accept the direct negative with a patience, even an indifference, that may greatly assist our natural conservatism, whether of thought or life, but that on being recognized certainly does arouse our wonder. Good and its opposite evil, true and false, real and unreal, unity and plurality, life and death, the indivisible and the divisible, rest and motion, plenum and vacuum, immaterial and material, actuality and illusion, lawfulness and lawlessness: these and so many other opposites are the common stock-in-trade of our living and thinking, and we accept and use them with a complacency that cannot easily be exaggerated. Yet the negative in each and every one of them holds the future of the universe in the palm of its hand. And the special scientist before his inevitable paradoxes is as conservative and as complacent as the rest of us.

But it is one thing to say, or even to reason out cogently and satisfactorily in every way, that the

special science, if both persistently special and honestly scientific, must be sooner or later inwardly contradictory and treacherous to itself, and it is quite another thing to show the contradiction in actual cases. The actual cases, however, are more easily found than many are likely to suppose, and at mention they may even seem like forgotten memories, like things which at some time we have noticed but become callous towards. Thus the atom is through and through a self-contradiction, being itself only a part of a divided reality, yet at the same time itself real only because indivisible; and a science harbouring such an atom can hardly be said to be unmixedly physical. The vibration, too, already referred to here as motion in poise or at rest; infinity as one more quantity that is significant because not quantitative; the sensation, a component element of consciousness that cannot possibly be composite; the plenal physical medium, which can be physical only if displaceable by other material things, and so plenal only if not physical, and which has served besides as an immobile yet infinitely elastic basis of motion or its transmission; and, to give just one more instance, in moral and political science the person, a self-existent, actively free being or entity whose every deed as well as whose every thought is responsible to something, being adaptive and therefore social, social with other persons and with nature, and whose every virtue implies dependence and an existence shared with something else: these are all also self-contradictions. And in view of them who must not see how the special sciences are always more than special, ever correcting

in ways that may be unappreciated by themselves their partiality of view, ever responsible to the totality of things even while they would observe things only under selected view-points. Such contradictions, once more, show mind loyal to what students of logic are familiar with as the "universe of discourse." Even in science you cannot discourse about anything without at least implicitly discoursing about everything, although in order to do so you must speak in such paradoxes as the atom, the person, the biologist's "vital unit," the vibration, the plenum, and the like indefinitely.

Nor is the scientist the only dreamer of paradoxes among men. Ordinary practical life, as we have seen, teems with paradoxes. But, for purposes of illustration, not to say also of giving greater breadth and depth to the view, a reference to the situation in the religious consciousness will have peculiar value here. A religion that supplements reverence for a personal God, working miracles and caring for the elect, who even nowadays are more or less elect, with belief in a devil, even nowadays more or less personal, is clearly a blood relation to science, and it is besides by no means so unnatural or irrational as is often declared, particularly by the scientists. Its two errors, just because opposed, conserve what is real, and no science can claim more than that. Indeed, a science, notably a special science, like a theology, might well be described as a system of mutually corrective errors, of abstractions that, because abstract, distort the reality of things, but that also because being at difference with each other and eventually

falling into contradictory and so counteracting pairs are at least parties to what is real and true. By hook or crook, by the hook of abstraction or the crook of contradiction, every science gets in touch with the universe as a whole, and so even with its errors is a "working" science. The errors of many a religion, by their working together, have not failed to save men.

So we may return to the assertion that in its specialism, as well as in its demand for objective knowledge, science is self-contradictory, and with this conclusion established the exposure of science already offers a very strong case for the doubter. Yet it does this only to the extent and in the sense that contradiction warrants doubt. After all is said, have we been only exposing science? Has attack been our only procedure? Do we not find, as we reflect, that in our exposure there has also been something very near to defence? Or, once more, through the science to which we have taken exception have we not seen a science in which we could believe? In the examination of science's objectivism we saw that technique buried science, but—though we did not say this in so many words—that there might be a resurrection. If fruitful in inventions serviceable to life, science was justified in spite of its cultivated objectivism, and the objectivity itself, besides an aid to accuracy, has further significance as possibly an earnest of wider social relationship, of broader and deeper life. The question of fact, too, if appreciated and so made subordinate to the question of meaning, was even allowed, and science, although at once formally conservative

and materially negative and destructive, seemed after all to be the promise, so to speak, of a new dawn for the very things denied. And now in what has been said of the specialism of science, the same turning of the edge of attack is all but manifest. Every special science is narrow and relative—it is in the form of an unreal dream; but reality somehow gives form to the dream, for there are always the compensating conceptions. The contradictions by which the compensation has been effected are, then, interpretable not more as causes of doubting science than as reasons for confidence in it. Thus, to be tedious again, the special science is relative and formal; it is a peculiar system of ingenious abstractions that in so far are also errors; but its formal character includes also contradiction; its errors are so related as to correct and balance each other; so that, even in the face of our necessary scepticism about it, science has been evident to us, as also was the consciousness of ordinary life, as somehow always building better than it knows or than its methods or ideals and doctrines viewed only from without would lead one to expect. Moving in it we have certainly felt the presence of something, not yet called by name, which is very like a principle or power of validity, preserving the reality of things even in and through the relativity and contradiction under which the things are seen. While the letter of our knowledge, even of our scientific knowledge, must ever have an indeterminate future; while rest or stability, ultimate reality or consistency is quite impossible to it, still its inner, active spirit seems a source of faith that is inviolable, that cannot be shaken. Different quan-

tities, such as four and two, and sixteen and eight, do not make the same sum, much less are they the same digits; but they are in the same ratio, and similarly the truth of science would seem to lie in the ratio, the working together, of the errors of science. Outwardly and materially changing with time and with people, assuming ever new forms and comprising always new doctrines, science nevertheless, as an active force, as a positive resultant, is at least now conceivably always the same and applicable to the same life. Even the Babylonians of an ancient day successfully predicted eclipses, the very errors of their astronomy working together for truth, exactly as the heresies of pagan religion seem to have balanced each other to the preservation and the development of the life which we of the present day and the Christian civilization are pleased to call our own.

Accordingly the science we have to doubt is also manifest to us as at least a possible object of faith. The very causes of our doubt before our very eyes have turned, or are in process of turning, into possible bases of belief, and our confession of doubt as it proceeds is proving ever more worth making. We are trying to be such honest doubters. We are indeed such penitent believers.

III. SCIENCE WOULD BE AGNOSTIC.

Still we have, thirdly, the agnosticism of science to consider and appraise. Agnosticism confines knowledge to actual positive experience, and in its form of "positivism" to an only tentative acceptance of actual experience, and it is thus in effect an admission of

just those limitations which have been found to belong to science as objective and special. Objectivism and specialism have both shown science to be standing in its own light, or at least to be standing in the way of any direct and positive knowledge of reality. Whatever they make possible to our virtual as distinct from our positive consciousness, whatever indirectly or implicitly may through them belong to our conscious life, formally and visibly, positively and directly, we cannot know reality. In a word, science must and does recognize an unknowable, or at least an unknowability in things, and agnosticism is accordingly important among the three determining points of science's circumference. But here is now our problem: Does science put the right value upon, does it ascribe the right meaning to, its agnosticism? Is the implied scepticism of the sort that we can cordially accept? Especially, does science have any due appreciation of the negative, not to say of the suggested dualism, in the opposition between the knowable and the unknowable?

Now both objectivism and specialism plainly involve aloofness, which is perhaps only another word for what in the preceding chapter was called abstraction. By the first of these two "isms" science is held aloof from life; by the second, through the many divisions, from itself, that is to say, part from part. Men who would be scientists withdraw, as we hear them boast, from affairs, and as they withdraw it is also as if they put on distorting and even discolouring glasses, through which in one and another "special" way they would behold the "objective" world. Their with-

drawal is thus not merely physical; it is also mental. To look out of the window one must turn one's head and lift one's eyes and adjust both head and eyes in other ways; but looking in general, whether from the needs of an objective or a special view, also demands certain pertinent adjustments, and the demanded adjustments make the resulting experience just so far aloof, just so far discoloured and distorted. Granted that these terms can be only relative in significance. To be aloof from something is to have it equally aloof from you, and you should be no more discredited by the separation than it. To be distorted and discoloured is to be so only with regard to something that in its own peculiar way may be equally transformed. Such relativity, however, cannot deprive the differences involved of real significance; it can only emphasize the general instead of the narrow, local application of the terms found to be relative. What is relative is not unreal; it is simply shared, like cousinship. So science, the looking of science, means real aloofness and real disfiguration.

The truth of this has already been apparent to us in a general way, but it will be worth while here to be more specific. The space and time, for example, in which scientists observe things are widely different from the space and time of will and action. In ordinary life a difference is felt between the world we know and the world we live, but the extreme professional attitude of science greatly widens the differences. For science space and time are quantitative, divisible, formal, mathematically correct, and independent of what is in them, their reality or qualitative

value to active life being hidden or at least only very indirectly presented—I suggest, in the constant opposition of their finiteness and infinity—while for will and action they are qualitative, indivisible, inseparable from what is in them. Who ever did anything in a composite, divisible space and time? Action in such a sphere would be hopelessly jerky; with Zeno's flying arrow it would just always rest *in statu quo*, though its *status in quo* might have an indefinite series of positions. Again, the scientists reduce causation to mere uniformity of co-existences or sequences, which is no real causation at all, being only so much passive existence or mechanical process, while will or action is causation, the positive interaction of things, the active relation, the vital unity, of what was and is and is to be. It is true that here, too, the causation of real life is darkly presented by science in a constant opposition between a single first cause and an eternal series of causes, for such an opposition makes real causation in an important way quite transcendent of the mere differences of time; but, setting this concession aside, who ever did anything in a world either of one cause active long ago or of an infinite series of causes? And, once more, science needs elements, while will or life is the eternal denial of elements or anything like them. Says a well-known writer:[1] "It is one of the greatest dangers of our time that the naturalistic (or scientific) point of view, which decomposes the world into elements for the purpose of causal connection, interferes with the volitional point of view of real life,

[1] See Münsterberg's *Psychology and Life*, p. 267. Houghton Mifflin and Co., 1899.

which can deal only with values, and not with elements." The danger involved will occupy us in a moment, but the bondage of science to elements, to a composite world, to a thoroughly "decomposed" reality, will hardly be questioned. Through contradiction, again, as in the chemist's component atom, itself not composite, or the biologist's "vital unit," which bids fair to be the master paradox of the day, science may darkly and indirectly preserve the world of real life, the world that is neither one element nor many, but in this case as in the others the indirection, after all is said, only emphasizes the aloofness.

So science is aloof, and in being aloof it disfigures and defaces reality, and the argument for agnosticism is consequently unassailable. No one more effectively has shown this than Immanuel Kant, although one may question Kant's final appraisal of the fact. Here certainly is no place for an exposition of the Kantian philosophy, but, briefly and simply put, that philosophy has characterized space and time and the relation of cause and effect, not to mention certain other very general data of experience, as the *a priori* forms of all valid, objective knowledge, and being translated this is to say that these so-called forms are the enabling attitudes of the merely looking consciousness or the peculiar glasses which, as it were, the mind puts on whenever it turns just to look. The typical Boston girl, according to the cartoonists, is never without her glasses. In like manner the typically, professionally correct looking consciousness, the observing, scientific mind, is never without those enabling attitudes. Do you ask if they are then only subjective attitudes?

They are subjective only as they are relative. They are subjective only as they express the aloofness of the scientific observer. And they are subjective, lastly, only in so far as can be consistent with Kant's further characterization of them as in every instance imbued with essential opposition or "antinomy." Remember that an attitude that harbours opposition is always tip-toeing to overcome the bounds of its own natural vision. Such an attitude cannot be unmixedly subjective.

But what now is the danger of science's agnosticism, of science's own admission that being "objective" and "special," or being under the constraint of certain enabling attitudes, or being at best only tentative in all its doctrines, it is not and cannot possibly be formally realistic? One might imagine, or expect, that confession of its limitations would be good for the soul of science, and in truth we shall certainly find some advantage resulting from the confession, but even science's agnosticism is faulty in a serious way. The writer quoted above has told us that the great danger always threatening science is that the scientific will interfere with the volitional point of view, and this is equivalent to fearing, in the interests of science, that the scientist will forget his agnosticism and try to render what he cannot know in terms of what he does know, or that the man of affairs will look to science for his programmes of action. Such a fear, however, may play to the professional conceits and the professional isolation and abstraction of the scientific point of view, but it is very far from grasping the true import of the conflict between knowledge and unknowable

reality. I should myself assert, in partial if not in complete opposition to Professor Münsterberg, that science's very natural danger is that the scientific and the volitional point of view will be kept apart, that the professionalism and the formalism and what Kant called the phenomenalism of science will prevent their interference. At least, this danger is just as great, and just as seriously a danger, as the other. Most people know well enough that keeping science and life or theory and practice apart has the effect of making the former lose itself in a highly morbid intellectualism, and the latter in the dead monotony, of a mere existence, sometimes presumptuously styled "practical life," but such a result seems not to trouble either Professor Münsterberg or the conventional scientist whose cause the vigorous professor has espoused. In other regions, fortunately, a formal disparity is not accepted as arguing to a natural divorce, but is even considered, let it be said, a reason for association; and as for the disparity between science and will, it is quite true that life without science is lifeless and that science without life is meaningless.

Perhaps the crowning fault of the agnostic scientist is his lack of humour. He takes himself too seriously. The lover, when his fair one has formally disagreed with him, rejecting his suit with her outspoken "No" and promising lasting friendship and goodwill even to assurances of assistance in his next venture, takes hope, smiles grimly within himself, and feels sure still that she and he, however disparate, are meant to live together for better or worse. But the rejected scientist takes the unknowable's "No" as if it

were final, and then, retiring to his study or laboratory, proceeds, though in a morbid, abnormal way, to mingle the scientific and volitional standpoints every time he writes a line or makes an experiment. We watch him as he goes, and find his case not without its humour. If the true lover upon being rejected were satisfied thereafter with caressing the lady's photograph, then he and the agnostic scientist would be in the same class.

But, as is needless to say, I am not writing a novel. So, romance aside, unquestionably the forms and doctrines of the scientific consciousness are peculiar, being, as has been shown, logically subtle, imaginary and innocent of direct practical realism, being, in short, the inhabitants of a world quite their own, and to impose them intact upon active life cannot fail to bring disaster, the usual disaster of a misfit. Yet, let us bring to mind, in the first place, that the scientific consciousness is not essentially different from consciousness in general, and that consciousness in general deals, and always must deal with artificial forms, with symbols, constructions, and transformations; and in the second place, that it always knows with some measure of sophistication that what it deals with is symbolic or constructed. Conscious creatures, from the moment they begin to draw breath, are trained to see one thing objectively and to understand or construe quite another thing for active expression. There is no visual sensation without muscular sensation, and most men, if not all men, have really learned in the long years of their own and their race's experience to get along without *seeing*

and yet also without foregoing the sensations in their muscles! Man's long training, in a word, has taught him to use what he sees as not direct reality, but only a symbol of reality, and so in volition always to allow for the "practical" unreality of the objects before his consciousness. The mere words bread and butter, for example, or even the visible things in a restaurant window, have never brought satiety to a hungry child, nor do I myself fear that they ever will. Moreover, the long training that is the surety against danger, and that at the same time has made man keenly awake to the value as well as the humour of symbolism, is just what has rendered the high development of professional science possible, and is also what makes possible and properly controls the application of science to practical life.

It may now be asserted that the facts are not in accord with the view to which I have just given expression, that sometimes, and very often too, the forms and doctrines of science are imposed without modification or translation upon practical life. Thus, though the names for edibles themselves as present to the eye—or to any other sense—are not normal substitutes for food, nevertheless some people, whether from poverty or from indigestion, have fed on them, just as they have taken long journeys with maps, time-tables, and guide books. In education, too, the formal conditions of science have suggested object-lessons and pure induction; in political organization we have had programmes of extreme elemental individualism, of lawless democracy, and of abstract communism and Christian Socialism; in religion God

has been like a thing seen, perhaps a tree walking or a man working, whether with hoe or rake or with other implement, perhaps a trident, and belief has been identified with an articulate dogma or formula; and many a realistic novel, treating the details of life as a scientist might treat them, or many a psychological novel, more problematic than artistic, has been put upon the market. But what can all this mean, undoubtedly true as it is, save that science belongs to life, yet is applied to it with difficulty and only under conditions of conflict? In the case of the edibles, poverty or illness, both of them incidents of conflict, is responsible for the unnatural substitution, and in cases of education, politics, religion, and literature, the substitution is equally a makeshift which the conditions of conflict impose upon life. An individualistic programme will not work, nor will a purely socialistic programme work. Mere induction will not educate. No visible God ever was divine, and no articulate creed ever was true. Life is a game throughout; its vital character, its very integrity is its experimental character; it is not a settled, abstractly perfect thing. Life is dynamic, not static. Accordingly it must move forward by its mistakes, or by storm and stress of the incongruous and misapplied, being inspired, not by somebody's complacent optimism, but by a sacrificial, always heroic idealism; and its scientific practices, however truly a mixing of things formally incongruous or disparite, are just aids to its reality. Moreover, those science-formed practices are always in some measure sophisticated. Human nature is rather a fine thing in its way, as

many a man has flattered himself and his kind by saying. Witness the homeless, ill-clad, starving child feeding over the odorous grating and before the well-stocked window of the restaurant, and feeling, if not actually saying: "As long as I cannot have and eat, it is good to smell and see." Witness, also, the educator or the statesman or the priest or the novelist. Each knows his makeshift and feels some of the humour of it, and in his closet, when not before his public, acknowledges the violence to which he is lending himself.

And another fact, besides that of the actual applications of science, which, however violent, prove the need as well as the dangers, and besides the sophistication, perhaps also the sense of humour, which always accompanies the applications and at least tempers their violence, must also be mentioned. Those science-formed programmes always go in pairs. Individualism and socialism, realism and mysticism, Epicureanism and Stoicism, orthodoxy and heresy are inseparable, socially and historically; and the effect of such pairing is plainly to correct whatever of violence the sense of symbolism and the sophistication and the humour of the time may be unequal to. Thus in the movements and programmes of society for any given misfit there is always a counter-misfit. Possibly human life, at least as socially organized, is only a competition of misfits, its programmes coming, not through the acquired supremacy of one side or the other, but through the constant mediation, the balancing and interacting of the two, and the misfits are perhaps exclusively the gifts of science or at least

of the observer's consciousness generally, and man is at once serious and humorous enough to impose what science gives on the real life of his fellows, as a ready-made clothier might on a stray countryman; but is a city, then, to have no Hyam, and is the life of society also to dispense with the gifts of science because they are imperfect? There are worse things than clothes not made to measure or than the men who sell or buy them. There is the life that never changes its old clothes for new. There are the clothes that never get on the market at all.

Accordingly the interference of the scientific with the volitional point of view is, to say the least, not the only danger which the scientist or the practical man needs to recognize. There is also the danger that the disparity between science and life, or between knowledge and the unknowable, will be construed to mean that the two are never to live together. Science may be innocent of any direct accord with reality, being in form quite innocent of a real realism, but after all, whether by itself or in its various applications or renderings in human life, it is so innocent only in a qualified sense, only with reference to the form of its specific doctrine and attitudes taken individually. As itself a living whole, part acting upon part, each abstraction corrected by some counter-abstraction or perhaps by some inner self-opposition, as conscious too of its own conditions and limitations, as sophisticated and even humorous, both for all logical purposes and for all purposes of applicability in the life of society it is realism itself. As harbouring what above was called, in so many words, an

inner active spirit of veracity or power for reality, a constant agent of validity and applicability, it is itself a party to the real life.

But return to the idea of the divorce of science and life, which is such an easy conclusion of agnosticism. If divorced, it was said, they are lost, the one in a morbid intellectualism, the other in the dead monotony of mere existence. Now, in view of the fact that many have found such a divorce to possess the highest ideal value, it seems worth while to remark that after all is said the separation can be only apparent, not real. Even if we neglect wholly the writing and the experimentation of the scientist, as volitional as they are scientific, and the practical consciousness, moral or prudential, of the disciple of the "real life," as scientific as it is volitional, we shall find such to be the case. We know men who have what may be styled, and what sometimes is abusively styled, a double life. They have their science, perhaps their laboratories and their books and their own pet doctrines, and they have also their social affiliations in business and in politics and in religion; and, whether it be ideal or unideal, admirable or reprehensible, their life certainly does seem double, because their sociology and their business, or their political theory and their party ties, or their biology and their religion simply will not mix; but their apparent duplicity has apparently little or nothing to rest upon. It may count as two, numerically, but such counting never makes being. Men should count less and think more. On the terms of such a numerical separation, as was said, the science can be only formal, the life only dead; but such a

science and such a life make one existence, not two; and, however amusing the conclusion may be, it is nevertheless true that the science, for just what it is, has been applied, making the life just what it is. Are scientific technique with its aloofness and logical abstractions and a life that in its own special affairs can be only conventional and ritualistic, or say routine in the study or the laboratory and routine in the church or market-place, are these so different as really to be, whatever the appearances, independent and distinct? They may count as two for being in just so many different places, but the man, scientist or practitioner, is always necessarily with himself, and in this sense never in more than one place, so that in character and value the two routines are one and the same. Moreover, the ennui which together they are sure to induce must end sooner or later in a common cry for help, in a passion for reality that will turn each toward the other with an irresistible appeal.

Once more, then, there is danger for science not merely in the interference, but in the obstinate independence of the scientific and the volitional point of view. A protected science may have no less, but also it has no more justification than a protected industry. Competition with life and will may often bring science low, degrading its methods and impairing its *professional* success, but protection involves at least equal risks. Professor Münsterberg—but may he forgive me my Homeric epithets—is a too zealous epistemologic protectionist.

The difficulty as to the agnosticism of science may be presented in another way. Dismissing all thought

of either interference or divorce and all thought of the scientist forgetting his agnosticism or taking it too soberly, we may say that the scientific agnostic, being under the spell of the scientific way of dealing with things, is disposed to treat the unknowable as if it were but one more thing or fact among all the other things or facts with which he is wont to deal. The world for him is then composed of two departments or groups, which like a good scientist he classifies and labels, the knowable and the unknowable; and nothing could be simpler or more natural. Though the point of what follows may be lost in its appearance of mere wordiness, so to speak, the world of his interest, of his formal knowledge, includes, among the other things, that which he knows to be unknowable, and with the inclusion and the knowledge of unknowability he imagines his responsibility to the unknowable both to begin and end. Or, again, the agnostic scientist regards the unknowable as something apart from the knowable, as something not for him to know and also not having any vital, intrinsic relations to what he does know, but something nevertheless objectively presentable to a creature with knowing faculties altogether different from his. The unknowable is thus for him still the object of a looking and thinking consciousness, yet never of his looking and thinking consciousness; it is knowable, and formally knowable, yet not to him, not through any of the forms of knowledge, the enabling attitudes, at his command. And nothing, I say once more, could be simpler or more natural. But, properly and professionally scientific as it may be to give to agnosticism this turn, it is very

decidedly an excellent example of professional blindness, being a sort of *reductio ad absurdum* of the scientific point of view, for plainly it treats the unknowable as a matter, first, of knowledge—the scientist's knowledge of its unknowability, and as a matter, second, for knowledge—the knowledge of the creature with the different faculties. Surely such treatment is not honestly agnostic. Science, therefore, if it would be honest as well as scientific, must forget its professionalism and take the negative of the unknowable in another way.

In what way? In making reply to this question I must resort to a distinction, which I have frequently found useful, between the dogmatic and the merely instrumental. Thus agnosticism may be dogmatic, as the conventional scientist would hold it, flatly declaring for an unknowable, or it may be instrumental, esteeming the unknowability in things, not merely as relative to the existing conditions of knowledge, but also as a constant demand upon science that it never rest in itself, that it for ever treat its results as only a means to some end. So viewed an instrumental agnosticism is also teleological, but not in any sense of a fixed and static telos. Telic character or purposiveness and fixity are like oil and water. Whatever the traditional theologian may think or say, they simply will not mix.

Of the two kinds of agnosticism, the first hardly calls for further treatment, for it is plainly that which has been recently examined and found to be more scientific, or at least more professionally scientific, than fully and personally honest, and the second is

very nearly akin to positivism, but must be scrutinized closely, for it certainly leads beyond the usual bounds of positivism. The positivist in science, as has been indicated above, accepts only actual positive experience and accepts that only tentatively. The working hypothesis is thus the master of his mind. What he knows, however well established in his actual, positive consciousness, is at best only relative and mediative. But—and just here appears the defect of his position, or just here we see him still only the professional scientist—the mediation which absorbs his interest is merely one of formal knowledge; what he knows always leads him just to more knowledge; his formulated hypotheses as they are tested are but aids to new formulations: whereas, besides this mediation, there always is another at least equally significant, for knowledge under the very conditions of its rise and formulation must for ever be a means to something besides mere knowledge. Recognition of this other mediation, accordingly, is all-important to any final appraisal of the meaning of agnosticism, to an appraisal that is justified just through being superior to the special interests of formal and professional science. Is it not one of the functions of the various negatives in our human life really to save life from the narrowness of its various professional abstractions, and is not the attitude of agnosticism but one of these negations?

And now, if for a paragraph or two I may be even offensively abstruse, the conditions of our positive experience, of our actual knowledge, are such, and are commonly recognized to be such, that there must always be an unknown. Every working hypothesis

by implication points to an unknown. It is equally true, however, that the conditions of positive experience are such that there is no fixity to this unknown; and the unknown changes in consequence, both in possible content and in possible quality or value, with every change in knowledge. But *always* an unknown which is *never* the same unknown must mean something more than merely a yet-to-be-known; yes, it must mean even more than an infinitely, eternally remote yet-to-be-known, for its being always, or its being infinitely distant, simply makes it something besides positive knowledge actual or possible. It must mean something which, though not knowledge, is nevertheless in knowledge, now and always; something served by all knowledge but itself other than any knowledge; something, then, which exceeds or transcends whatever the formal enabling conditions of knowledge are capable of presenting, but is itself intimately and vitally involved in the presentation; or, once more, something which is not at all in the character of a separate unknowable thing or sphere of things, nor even of a separate part in the things known or knowable, but is in the character rather of an unknowability, perhaps in a sense a relative unknowability, belonging to the very things and to every part of the very things that are known or, let me say, inhering in the bare possibility of all knowledge. Must there not be a sense in which just that which makes knowledge possible is itself quite impossible to knowledge? Who makes a law must be superior to the law, or "legally supreme," and what makes knowledge possible can hardly be fully and directly an object

of knowledge. Given actual, positive knowledge, then, and there must always be not merely an unknown, but also an unknowable; an unknowable, however, that is in and of the knowledge, not in place or in character a thing by itself.

I said I should be abstruse, and I have not yet finished. In fully appraising agnosticism we need to consider at close range another idea of the positivist. Thus for the positivist knowledge is not a having, but a getting—on the principle that unto him that hath shall be given; not a knowing, but a questioning and seeking; not a being, but a becoming—that has its ground in a being so real as to be without fixity of form. And this is plainly equivalent to making movement and action essential to the very nature of the knowing mind or to making knowledge dynamic instead of static, and infinitely plastic—even like life itself, that is always greater than its cross-sections or specific forms. But in general to an active nature nothing can ever be quite external; to a truly active nature there can be no essential impossiblity. For reflect. The mere existence of anything external or of anything impossible would in just so far remove and deny the intrinsic character of the activity; in just so far it would set the supposedly active being in fixity of life and definiteness of form. For an essentially active nature, therefore, all things—all things in heaven and earth—are both present and possible, and so, specifically, if that active nature be the knowing mind there can be no unknowable that is at the same time alien and altogether impossible to the knower. Even the very forms of the knower's knowledge must for ever com-

pass more than they may visibly present. The knowing itself in its own right and nature must be more than formal knowing, or than the "objective," "special" science, in which the formal knowing has its professional realization. And the knower, as he knows, in and through his knowledge must always be compassing just that which is not impossible to him, but only unknowable—that is, impossible merely to his direct, formal knowledge. Is the inedible or the invisible or the impenetrable or the unbearable or the illegible or even the unintelligible ever wholly impossible? Such negatives, and in fact all negatives, besides saving life from the narrowness of its various forms, do this positive thing: they open the door of life's wider, nay, of life's infinite opportunity or possibility, and at the same time they render those various definite forms really mediative or instrumental, making them parts in an essentially purposive existence. With just this meaning, then, a meaning larger and deeper than that usual to positivism, the attitude of the agnostic is instrumental and teleological. Agnosticism simply endows the knower—must we not even put our conclusion so?—with a wider freedom than that of knowledge, and yet also makes his knowledge both share and serve the wider freedom that is given.

Instead, then, of pointing to a known "unknowable," before which either some non-human creature or some human vice-regent of such a creature is not obliged to be so knowingly humble, instead of establishing the conceit that knowledge or science is wholly for its own sake and so of divorcing knowledge and real life, instead of making castes out of the social

classes of those who look and those who do, the unknowable must be taken to point to the necessary unity of knowledge and life, of theory and practice, to the fact that all looking is incident to a running and before a leaping, that all knowledge is responsible to life, and that only life, however directly unknowable, can ever inform knowledge. It even suggests I think with Carlyle that "the end of man is action, not thought, though it were the noblest." Yet, in truth, though its own emphasis may thus exalt action, it cannot mean any depreciation of thought or knowledge, only their enlistment in the service of life.

At this point it would be interesting to show in detail how action—that is, volition or application to life as central to the meaning of agnosticism—is not only the logically appropriate nor yet only the sentimentally ideal, but also the inevitable, the inner and actually real motive, the natural outcome of the scientific standpoint in each one of its three attitudes. Such a showing might follow historical and sociological lines, or it might appeal to psychology or it might be abstrusely logical, but I can ask attention only to a few suggestions of so general a character as not to be easily classified.

The natural consequence of objectivism is something like that attributed by many to modern militarism, since it ends by inducing the very thing it claims to prevent. An objective science discloses the mechanical nature of man's environment, besides making man himself also a good deal of a machine. But a machine, whether environment or personal being, is always a

tool whose fine, accurate adjustments are just so much presented opportunity that by a sort of hypnotism turns the scientist's consciousness into that of an effective agent in the world. Somehow a real machine must move, and in the case before us with the movement the asserted distinction between looking subject and seen object collapses hopelessly. Witness such a collapse, as the runner, who has been studying the stream before him, takes his leap, or in history as an age of self-consciousness, conventionalism, and utilitarianism, is followed by the rise of Napoleon. So does objectivism pass over into action. As for the special science, it may be impractical, because partial, but we have seen how at least formally it loses its partiality, becoming even all-inclusive, indirectly compensating for its narrowness of view and so becoming virtually co-extensive with all its associates in science. The dividing partitions may still stand, but only as unsubstantial forms wholly transparent and ineffective, so that the undivided universe is really present to consciousness. The undivided universe, however, as present to consciousness, is a call for will, since it cannot be fully realized in any formal consciousness. The natural decline of an asserted specialism, then, or the development of specialism into a mere form without substance, into a virtual universalism, makes science applicable. It makes science applicable, for in the first place it gives freedom from the bondage of mere special technique, just as, for example, the decline of religious—or irreligious?—sectarianism, a form of specialism certainly, is sure to free religion from the bondage of ritual, and in the second place, as was the

fate of objectivism, it makes the distinction between self and not-self, subject and object, man and nature, only a formal one, since the real unity of the objective world is exactly that in which the self has its true realization. In like manner a religion turned non-sectarian shows man truly living and moving and having his being, not aloof from God, but in God. Thirdly, whether because of the freedom from technique or ritual or because, as the waters of science become quiet with the union of its many streams, the objective world does clearly mirror the image of the self, the decline of specialism, like the decline of sectarianism, brings what some are pleased to call the liberation of the human spirit. The psychologist would call it the development of knowledge into will—in a word, the application of science, and the historian would record it as the dawn of a new era. Psychologically and historically the human spirit is liberated and nature is let loose at the same time. Details can always be observed objectively and specially or separately; the whole, on the other hand, is bound to draw the observer into itself and so to change the observation into motive and will. And, lastly, as for agnosticism, suffice it to say, in addition to what has been said, that the suppressed passion for reality to which agnosticism must always testify ensures in good time the assertion of the volitional as distinct from the merely scientific point of view. Whatever this may mean psychologically, historically and sociologically it means that a time of agnosticism leads to all sorts of applications of science, such as those, for example, in legislation and in industry. In morals

and religion, too, the same wish and will to use the results of science shows itself, as in the social settlements, in scientific charity, in the "institutional" church, and in the university extension movement. Agnosticism, marking, as it always does, dissatisfaction both with the uninformed and with the conventionally informed life, and also rendering mere formal knowledge, however logically correct and thinkable, unreal or artificial, calls for a larger freedom of life through the mediation of knowledge.

But interesting as such reflections as the foregoing are, and interesting also as it would be to undertake an account of will in general in its relation to a consciousness which in so far as scientific is always artificial and symbolic, and is in particular, as we have found, always a poise between opposing points of view,[1] I must bring to an end this rather lengthy examination of the standpoint of science. If I have not already tarried too long, the special task of this volume certainly does not warrant further attention even to so important a department of human experience.

In conclusion, then, it is now quite apparent that science is a fruitful field for the doubter. Science lacks self-sufficiency. Socially it means the rise of a caste, and logically it involves abstraction and consequent division against itself. Its most cherished ideals, as shown in its attitudes and methods, are chimerical, or impossible. In general and in particular it has a

[1] For an interesting account, mainly psychological in standpoint, of will as involving such a poise, see Münsterberg's *Grundzüge der Psychologie*, Vol. I, chap. xv., Leipzig, 1900.

paradoxical standpoint, being not less given to contradictions than ordinary consciousness.

But, as must be added, the case for the doubter of science has led also toward a belief in science. Not infrequently in the course of the foregoing discussion it must have seemed even as if belief rather than doubt were the controlling motive. A little child has said that faith consists in "believing what you know to be untrue," and our present state of mind cannot be far from such a faith. Actually the science which we may believe in is the science of which we are also confirmed doubters. We doubt the formal attitude and the formal doctrines just because they are abstract, phenomenal, paradoxical, but at the same time we have to believe in the spirit—there seems to be no other word available—as an ever-present agent of validity, because, in spite of all, the very incongruities save these formal doctrines from their apparent artificiality and abstraction, and put them in touch with what is whole and real. And if, as was suggested, the scientific consciousness is only the specially developed consciousness of ordinary life, then we have gained also a new confidence even in the unreflective paradoxical consciousness of every-day life. Yet, that we may more fully comprehend what this means, we shall next consider at some length the possible value of the defects in experience which have now been observed. Ideas, which have appeared heretofore as little better than hints or suggestions, can then be presented in clearer form.

CHAPTER VI.

POSSIBLE VALUE IN THESE ESSENTIAL DEFECTS OF EXPERIENCE.

AN original sin, or an essential defect, must somehow be for some good purpose. At least, if a general faith in the ultimate propriety of all things has any ground to stand on, such must be the case. The sin or the defect cannot be unmixed; its very originality, its essentiality, must line it, though it be the blackest of clouds, with some silver. Theology has sometimes forgotten this, but an honest doubter cannot afford such a lapse.

Yet before examining the possible worth of the original defects of experience, or, as some might regard the present enterprise, before attempting to give the devil himself a "character," we must recall the various steps of our general undertaking as it has progressed so far. We have been, in the first place, occupied with a thoroughgoing confession of doubt, with the greatest possible candour hunting down all the reasons for the attitude of doubt which experience affords, and so far, in the second place, we have found doubt justified, whether for good or for ill, because of its potential when not actual universality among men, of its character as a condition of all conscious life, of

its importance to real active life and deep experience, of its intimacy even with habit, and of its natural sense of dependence and consequent impulse to companionship with nature, man and God, but more than all—and this was the special interest of the last two chapters—because of the paradoxical and self-contradictory nature of all human experience. As regards the last point, our ordinary consciousness, the often-boasted consciousness of common sense, was found to harbour a widespread, very persistent duplicity towards such vital things as reality, wholeness or unity, space and time, the causal relation, knowledge, moral freedom and natural law; and science, to which many when dislodged from their ordinary standpoint have been accustomed to retreat with greatest confidence and hope, was examined with similar results. Science was found in its rise to involve abstraction of interest and disruption of life, and in its avowed point of view to be—suppose I say at this point—impossible but contradictory. So, in a word, as a clinching argument for doubt, as an argument that at least on the surface has less of hope in it than any of the others, we are face to face with the bare, hard fact that in the very nature of human experience, besides the relativity and instability and subjectivity, there dwells a spirit of positive violence. Contradiction is just one phase of the error to which all men are said to be addicted. As a background for the inconsistent theologian, the fickle woman, the shifting politician and other equally double-faced monsters, we see both-sidedness, individually and to a certain extent socially, to be a basal habit of human nature,

and if the doctrine of original sin is tenable at all, in just this fact it would appear to have its strongest support. *Humanum est errare* may be translated: Man is most human when hopelessly divided against himself.

But just here our confession of doubt has reached a critical stage; since in experience apparently at its very worst, as if in a medley of discords we have caught a promise of real harmony, and so something from which to get genuine hope. In the very habit of duplicity or contradiction we have again and again had suggestion of an agent of validity, a power for adequacy in experience, which would hold even a phenomenal, relative, partial experience to a real world. In short, really the strongest reason for doubt is possibly a ground of belief; or, as was said in substance at the close of the foregoing chapter, the very experience of which we are already confirmed doubters is, after all, just the experience which we seem to see our way to believing in.

Since the time of the great Leibnitz, and probably since the time self-conscious man drew his first breath, all genuine optimism has caught its most assuring vision of what was good, not in something quite apart from what was evil, but in and through evil itself, as if what is evil must be ever building better than it seems or than it knows. Very much as mathematics has viewed the negative quantity as an integral part of the whole system of quantities, so in the person of Leibnitz—statesman, historian, scientist, mathematician, and philosopher—and I imagine in the person also of you or me, though we may not claim the same

authority, the human mind has been wise and deep enough to see evil, representing all the negative things of life as an organic part of the best possible world, even of the world created by an infinite God. At least since Leibnitz's time, I say, optimism has generally justified itself, not by denial of evil in the world, but in and through evil. Not long ago a young man who was perhaps more profound and reflective in his habits of mind than wise in his manner of statement, said to me that the most spiritual truth as yet disclosed to him was the identity of God with the devil. A shocking declaration, of course; yet, to say the least, not very far from the very spiritual idea, welcome to most, if not to all, that the conviction of sin is the beginning of salvation, or that the consciousness of ignorance is the very ground of wisdom. And here, similarly, belief within doubt, not belief apart from doubt, or validity and reality only in a contradictory experience, not aloof from a contradictory experience, is the sum and substance of what our confession has certainly been leading towards.

Nothing, it is indeed true, so blasts a man's assurance as to have his ideas and arguments on a certain matter, or on matters in general, exposed as defective, and worst of all as positively inconsistent, and with his discomfiture human nature must always entertain the warmest kind of sympathy. In fact, upon just this sympathy I have been depending in the development of the argument of this book. But human nature, however sympathetic, is really superior to any momentary discomfiture, and most if not all men sooner or later come to value highly

even their once discomfiting inconsistencies. "I am glad," we seem to hear a fellow-being say, "that after all, in spite of myself, I did recognize the other side. You abused me and called me double; yet so doing you were double too. I see now that my duplicity saved me, not, however, for your view or for another's, but for the both-sided and true, which we both shared and served"; and exactly such a reflection on the inconsistencies of experiences, in their less or in their more fundamental manifestations, is the burden of the present chapter. Again, to one who complained that with every breath he took he had to contradict himself, respiration being as necessary to his breathing as inspiration, just as in walking falling is as necessary as rising, we might properly and satisfactorily reply: "You are really alive, sir," and just this answer is also quite pertinent to any who might be disposed in their doubting to despair over the essential duplicity of human experience. Is not experience more than any one idea or any one ideal? Being really alive, is it not infinitely more than this or that thing, than this or that place or time, than this or that power or will, than this or that point of view? And, if more, what so surely as universal duplicity and self-opposition can ensure at once its vitality and its integrity?

I am not forgetting or wishing my readers to forget that there are other defects in experience besides this of self-opposition, besides experience's habit of never failing to induce its own conflicts; but no defect seems to me so central or so conclusive as this, and none is at the same time so clear in its testimony to the intimacy of doubt and belief. Sub-

jectivity, relativity, phenomenality, artificiality, partiality, and instability—certainly an imposing and appalling list, though logically I must suspect it of being at least a cross-division—are all noteworthy defects; but supposing the list exact and complete, we must recognize that all these either beget contradiction or are begotten by it. Contradiction is just the life or the heart of the interesting family to which they belong, and so in applying our thinker's stethoscope to that heart we shall have determined the hold upon life of the whole race.

Now, there are five things, some of them already foreseen, that seem worth saying here of the essential habit of self-contradiction, and they seem worth saying because so effectively and so comprehensively they warrant the conclusion that even upon our strongest reason for doubt we may rest a genuine case for belief.

Thus, for the first of the five, contradiction incites and even in itself implies movement; it requires, or positively it is, action. As a mode of thinking, as a logical form, it is the way, perhaps the only possible way, in which the mind can, so to speak, make a cross-section or take a picture of activity or give the semblance of fixity, the formal appearance of static nature, to what is dynamic. The photographer trying for a portrait of reality might ask it only to look pleasant, but the logician, for whom reality was essentially dynamic, would demand manifest opposition, for in no other way could his art, limited to conditions of rest,[1]

[1] This limitation is shown, for example, in the logical principle of identity.

be equal to its subject. Where experience is contradictory, then, there is movement, whether for that which is known or for him that has the knowledge. In your character or mine, so like a lover's unselfish selfishness in its apparent inconsistencies, in our double views about reality or unity or law, in a subjective-objective science, in an agnostic philosophy, in all these the contradictions are only the marks of essential unrest, of necessary movement, that make the picture possible. For a world of opposites there can be no peace. The very things opposed are themselves fluent and unstable, and that third something, the *tertium quid*, a picture of which the opposition tries to be or to which the things opposed necessarily point, belongs, as Alice in Wonderland seems to have discovered, to yesterday or to-morrow, never to to-day.

But, secondly, contradiction, at least as here understood, is an expression, or in experience a means to the expression, as well as to the maintenance, of real unity. In general this is because real unity cannot take sides, and so can never reside in anything that is, but must rather be served by the co-operation of all things and in particular by their mutually corrective or balancing differences. This no doubt will appear to some readers as just one more example of a philosopher's impossible subtleties, as a mountain with its top in so rare an atmosphere that the common man would not dare to climb it if he could. Yet, suppose together we rise to the heights of this seeming impossibility by a little unprejudiced study of the conditions, remembering that the summits of very wonderful mountains, plainly impossible of ascent, have often been reached

from the other side, and that difficulties of breathing are often due to a needless exhaustion. To take a first step, then, contradiction is only difference, or contrast, at its limit. Naturally there is some opposition, some mutual resistance, in all difference, in that, for example, between one man and another, or one thing and another, between religion and art, red and green, or warm and hot, and often the difference or the opposition seems very slight; but contradiction, so called, is only this difference abstracted and unrestrained—it is difference at its worst or best, difference as only opposition, or, once more, difference where any possible unity of the things opposed has lost all material ground or all chance of actual, visible form, and has become, accordingly, at most merely an empty, abstract principle. Contradiction, then, is difference so wide that unity seems wholly betrayed rather than served or maintained. A real unity, however, requires for its realization just the freedom from material form or ground which such extreme difference would force upon it. It therefore gains instead of losing reality by passing into the world of the materially and visibly empty and abstract, or, say, by leaving behind any hope of a finite residence and entering the sphere of the infinite, to which difference, or at least contradiction, so cordially invites—or expels —it. And, this being true, we can see how unity is served or maintained, as was said, by the contradictions of experience.

Commonly men have an idea that differences mean, or point to, unity, but they are more likely to suppose that the unity is by mere contrast or antithesis than

clearly to recognize that it is a most intimate fact of the differences themselves. They will even see in a number of things only so many varying aspects of some one thing, and will go so far as to look upon the aspects as actually enriching and deepening the unity, but they still fail fully to appreciate how the real unity is immanent and immediate in the differences. Again, in all their thinking they contrast, and may consciously observe that they contrast, only objects or people that really have something in common, comparing, on the other hand, only such as in some way are manifestly different, and in their practical affairs they compete only with those who with them are parties to one and the same life, a fundamental sympathy, indeed, being a necessary condition of their rivalry, and actually and actively hate only the beings whom because of a common humanity they might love; but here, too, their appreciation lags behind the fact.

In life generally, moreover, in small things and in large, extremes do have the habit of meeting. A man's virtues are so near to his vices. The widest variations in things are only relatively at variance. Even what is cold is somewhat warm. Nothing is absolutely anything. In history a single ideal, rising to influence, has always divided men into two opposing camps. Witness the fact of bipartisanship, not in politics alone, but in all of life's interests. Democrats and Republicans, Radicals and Conservatives alike have loved their country and honoured their country's flag and, regardless of party, their country's heroes or patriots. Epicureans and Stoics—in recent times or long ago—have found the same life worth living. The

Roman Law and the Roman Holiday, working together, like the right and the left hand, different yet in sympathy, made the great empire. Two men, furthermore, in active, open conflict are in truth at serious difference with each other; but, as they might even say, if their conflict were in the form of a debate, where words instead of fists or pistols were the weapons, in the bare, unapplied principle involved, or say in the abstract, in the final success of whichever is the "best man," they do and they must agree. Simply throughout this life of ours there has been and there can be no idealism without conflict and no conflict, whatever the issue or the manner, without common weapons, which means, too, without some common relationship and some common interest. As for the idealism, too, what is it but a demand for real unity? And the common weapons, or for quite general purposes, the common forms in which a conflict or an opposition is expressed, as if the hiding-place of unity, perhaps a sleeping unity, only indicate in the very differences a basis, a potential of agreement, even an earnest of an underlying and sometimes awakening accord. So, truly, in life at large extremes do meet. But commonly men recognize at most only that they meet, without realizing that their difference is intrinsic to a real unity.

Where unity is real, then, there must be infinite difference, and infinite difference is just what the contradictions of experience impose upon experience and make it responsible to. Infinite difference gives to everything an opposite and to all things unity; to every man a rival and to human society, as a whole, solidarity. Against the material it sets the spiritual; against

the particular, the general; against the subjective, the objective; against the living, the dead; against the lawful, the lawless; against the caused, the uncaused; and to all these, the spiritual and the material, the subjective and the objective, the living and the dead, the lawful and the lawless, the caused and the uncaused, it gives place in a perfect unity; not, of course, in any material unity, since such unity could not be perfect, but nevertheless in a real unity.

For our first step, therefore, in the ascent of that "impossible subtlety," contradiction is only difference at its greatest limit; for the second, difference in general, whether partial or extreme, marks an underlying, or more precisely an indwelling unity; and for the last step, real unity is served, not betrayed by difference. Moreover, the wider the difference, the nearer it be to positive contradiction or opposition, the more conclusive and effective is the service. Remember, real unity can never take sides; in the world of things it must be always both-sided. It cannot be here or there, now and then—be the then in the past or in the future, this or that. In the words, used of truth, perhaps an appropriate refrain for this book, it can have neither visible form nor body, neither habitation nor name; like the Son of Man, it cannot have where to lay its head.

The particular opposition of life and death affords a peculiarly serviceable illustration, for it is, of course, at the bottom of many of the most searching paradoxes of our human experience. Real life cannot be confined to any single organic form or to any single group of organic forms. In fact, it cannot be bound even to the organic as commonly distinguished from the in-

organic world. So for the biologist, very much as for the theologian, whenever life takes a residence, death must ensue sooner or later. Life and death, then, as opposites, become the medium of *real* life. But not only have we here a helpful illustration, also we have a suggestion that should prevent an easy misunderstanding. In general, as so plainly in this special case, the opposition, so necessary to reality in experience, to a real life or to any real unity, can itself be complete and effective, not through any single instance of extreme difference, not through the opposition of just two distinct things, but only through an accumulation or summation of all possible instances, so to speak, from difference at zero to difference at infinity. In fact, a real opposition or rather a truly infinite difference, could be only in such a sum. Not the single climax of death, but the constant dying, to which it is only a climax, is what makes real the opposition of life and death and makes this the medium, as was said, of the *real* life. Death must constantly condition all the movements and processes of life: it must have all possible degrees. And, in like manner, extreme difference at large, just to be real itself and to make for real unity, must be in and through all possible degrees of difference. In other words, the perfect opposition, or contradiction, upon which reality depends, like the perfect death, is rather a continuum than the wide gap, or chasm, which so many have thought it; it is a graduate difference, not a single cataclysmic difference. Difference in gradation or degree, I have sometimes heard it said, is not real difference; but this statement, though by no means without warrant or meaning, is

misleading. Surely a cataclysmic difference, a "difference in kind," can be only one finite case of difference; the negative, or opposition, in it can be only relative; whereas, when in degree, difference becomes necessarily infinite. Accordingly, as we must not forget, from this point on through the remainder of this book, the contradiction of which we have been thinking and which we have found infecting experience at every turn, is not, what at first and even second thought it may have seemed, just an opposition of two things; between its lines, as it were, it is inclusive of, or maintained by, all the manifold and various things in life and consciousness; it is the completed, short-circuited sum of an infinite series. An infinitely many-sided world is the only world that can claim real unity, and a world of such real unity is the world to which the habit of contradiction, which we have observed, relates our human experience.

So far, then, in estimating the possible value of this central and essential defect of experience, we have found that it implies action and that it makes for, or testifies to, real unity. Now, thirdly, perhaps only to enlarge upon what has just been said, contradiction is an absolutely effective correction of narrowness or partiality or relativity or one-sidedness in life or consciousness, and so it makes experience not abstract, but realistic. This is in truth only another view of the worth of contradiction to integrity and vitality, to unity and reality, but it would emphasize, what is very interesting at least to the metaphysician, and cannot fail to be of some interest to the moralist and the theologian, that where there is real unity there

is also true reality. Only the One is. The One and Being are the same. There can be but one substance, as also but one God. So men have said in effect throughout the ages, and where they have conceded reality or substantial character to manifoldness, the concession has simply concealed a reassertion, but with fuller and deeper meaning, of the intimacy of unity with reality. What makes for real unity or wholeness, then, must impart realistic character, giving actual contact and intimacy with just that of which, so to speak, the world is made. Now individual things or ideas always show life suffering in some measure under tangential digressions from the circle of its real wholeness, and only opposition can save them or can preserve the reality to which they both belong and contribute. Has not Emerson, among many others, declared with a cogency and a depth of meaning which quite defy the superficiality and levity attractive to a few, that mere consistency is narrow and confining? Any particular view-point or idea or ideal, any particular thing or activity, simply needs an opposite to balance the abstraction or digression which being particular must always involve. Particularity, specific individuality, is certainly a necessary condition of real worth in life, but with an equal necessity there could be no life, no conservation and wholeness of life if the particular, individual things stood unchallenged in the world, and no realistic experience, if experience were not thus paradoxical and divided against itself. Life, therefore, gets not only movement and unity from the contradictions that lie at the very heart of experience, but in getting unity it gets also contact

with reality, and the three together may be summed up in the one word poise. Montaigne marvelled at the hopeless folly of mankind as compared with the wisdom of God, but man's folly is divided against itself and so imbued with God's wisdom; and with countless others he saw the ideas of man to be only subjective and unsubstantial and irresponsible, but man's ideas, though fanciful and illusory, though subjective and imaginative, work against each other for what is real and substantial. Man's ideas co-operate for their own correction and so for communion or intimacy with a character that is not less substantial or responsible than that of God himself.

And so, fourthly, the contradictions of experience make experience supremely practical. They make it practical just because they make realistic, or substantial, an experience which without them would be abstract and only relative and "phenomenal." Possibly this is the hardest thing of all to apprehend, or at least to express satisfactorily. Yet the fact, to which I keep returning, that only the both-sided in everyday matters or in science or in any form of positive experience can accord with reality and its wholeness, is assuredly quite to the point. In practical life there always are, and emphatically there always must be, two sides to every thing, to every question. In practical life, too, or at any rate in all effective activity, there always is, and emphatically there always must be, something very like to leadership; but any truly practical leadership, any leadership that is all along the lines of life, be it of things, ideas, persons, or social classes or parties, can never be confined to a

single individual representative, but must be instead a leadership of many. No thoroughly practical leadership, I say, can ever be on one side or the other, but instead of being one-sided it must be both-sided, or rather, infinitely many-sided; it must be between or among all the different and opposed individuals; it must lie, perhaps in a sense sleep, in rivalry and competition. There can be no visible leader, whose leadership is wholly practical, whether of things or realities—for the metaphysician—or of ideas or categories—for the logician—or of persons or classes—for the statesman or the moralist or the theologian. Metaphysical reality, the truly practical and realistic knowledge, the political supremacy which is complete and inclusive, or the wholly moral life or the divine life must forever be secured, not through a single manifestation presiding over the others, but through the divided labour of them all. Yes, real leadership, like real unity in general, is a divided labour; it is a labour that effects successful co-operation through its very differences and conflicts: for reality, a labour perhaps of different "elements" or "entities"; for knowledge, of different ideas and standpoints; for morals, of different standards; for politics, of different parties and platforms; for divinity, of different Gods; and for life at large, a labour of infinite differences, which means also a labour of opposites, that at once develop and correct each other to the glory of that which is real and practical.

It would be peculiarly interesting to examine further this principle of a practical, truly realistic experience ensured to human life through the inner

conflicts of experience. The history of morals and ethics, for example, notably of the perennial conflict between hedonism and idealism, could not but cast a good deal of light upon it; and the history of political struggles, or the history of the great controversies in science—such as that between vitalism and anti-vitalism or that between atomism and energism; or in philosophy, between dualism and monism; or in theology, between naturalism and supernaturalism, would also be most illuminating; while, also perhaps appealing only to the few, in the logic of the negative, as it has developed from the earliest times, or in psychological theory—for example, in the dispute of the advocates of the innervation theory and the afferent theory, or in Hering's theory of vision, or, again, in the life and movement of any one of the time-worn paradoxes of popular or scientific or philosophical ideas, one might expect to find suggestive illustration. In philosophy, Anaximander, Heraclitus, Zeno, Socrates, Spinoza, Kant, and Hegel have all found negation, or contradiction, necessary to any adequate account of reality. Explorations, however, in their teachings or along any of the paths that were suggested, would lead us too far astray.

Fifthly, then, not only do the contradictions make experience realistic and so practical, but also they make it essentially social. A life or an experience that is contradictory has (1) movement, (2) unity or integrity, (3) reality and poise, and (4) practicality; and then it has besides, as if the medium through which these four things are sustained, (5) social character, society being only the visible expression, the

outer realization, of the both-sidedness, of the infinitely differential unity or the divided labour, which an active, yet thoroughly self-controlled, truly realistic, practical experience requires. In a former chapter, it will be readily recalled, an impulse to social life was found to be intimately connected with the attitude of doubt, and here clearly we are confronted with only another view of the same fact, since contradiction has become our most cogent reason for doubt and is now seen to require the social relations. An individual whose experience is ever divided against itself is, *ipso facto*, a social character, his social environment, whether in its narrowest or broadest manifestation, adding nothing to his nature or to the struggles of that nature, but only making the division against himself constantly and manifestly real. The social environment, as it were, just proves the man, his struggle and all, to himself. Some have agreed that the individual consciousness contained nothing on which to ground a positive case for society, for direct positive social interest; but so long as man's experience is necessarily paradoxical or contradictory, so long as man is divided against himself, or as the labour of life and reality is a divided labour, the case for society and for personal interest in society is clear and conclusive. A basis for society lies in the very nature of experience. Society is not something added to individuality from without.

Let us here beware of easy sentiment. Let not our thinking conjure false sweetness and light. Experience is truly and essentially social; the individual was not meant to dwell alone; but herein is no immediate

cure-all, no promise of an unperturbed brotherly love, of a life for one and all of simple peace and blissful quietude. On such a plan society would hardly suit the individual with whom, and with whose natural experience, we have become acquainted. To speak with the extravagance of a counter-sentimentalism, the individual of our present acquaintance is forever spoiling for a fight. In the life of the society to which he belongs, in the life where he watches for his incoming ship, there must always be hate and evil in all their forms, lawlessness and destruction, illusion and error; but—and just here sentiment, the sentiment of a really searching optimism, called once before a sacrificial and heroic optimism, may find some assurance—never an unmixed hate, never a wholly idle destruction, never an unmeaning error. Can anything, indeed, that has another thing against it—that has, in short, an opposite—ever be itself unmixed? The good or the evil in society, being always opposed, is always also shared. So few people recognize, or appreciate, what a great mixer opposition is. Death is the passing only of inadequate or unworthy life. Hate witnesses only a false love; sin, a pharisaical righteousness. Destruction marks an imperfect construction. And in all its forms, evil is not so much something in and by itself as an exposure and reproach of what is supposed to be unmixedly good. Public crime, for example, is not so local as it appears; it is only a generally, widely private vice made locally manifest, and the respectable and law-abiding, who adjudge it evil, are bound to feel as if adjudging and condemning themselves. In a word, the individual's natural society

is never without evil, but in all its forms the evil has somewhat of good in it; and although social life, not less than individual life, must be one of conflict and discord, nevertheless, because the various factors or factions, however opposed, can never be unmixed, because the members of society must all be good and bad, right and wrong—I almost said living and dead together—instead of being hopeless for having evil in it, the life of society is so much the more worth living. Shallow sentimentalism may not so esteem it, but we need give little thought to shallow sentimentalism.

So our use of the word "society" is not sentimental. Society means conflict. It is just the natural sphere of life and reality as for ever a divided labour, as for ever divided and laborious—divided even between the powers for supposed good and for adjudged evil, and through the conflicts, in which the division is expressed, what is true and good and vital is being forever kept real. Or, to repeat, society is the natural medium through which movement, unity or integrity, poise and reality, and practicality are secured and realized in human experience; it is that which makes the individual's division against himself manifestly real and positively and progressively effective for a life, yes, for his life, at once of vitality and perfect wholeness.

But now that the five things are said, now that the contradictions of experience have been seen to serve experience by giving it movement, unity, poise, practical reality and social character, somebody is sure to remark facetiously that on the evidence contradiction is something we should all cultivate assiduously, and

that henceforth to face both ways, the butt of so much opprobrium, should be one of man's greatest ideals; in brief, that the inconsistent creatures in politics, morals, and theology are the coming examples for mankind. Verily the devil has been given his promised "character." But, alas! in the spirit of such startling humour one would have to conclude also that because crime has beyond all question been a means of social development, being all-important to the awakening of the social consciousness and conscience, all men should at once take thought and find it their duty to turn criminals; or, again, that because death has a fundamental part in the order of nature and is, moreover, of greatest spiritual worth and significance, we should all morbidly seek it, being successfully righteous only by being suicides. True, we do need to recognize the positive function of crime in the progress of civilization, or in the history of law, and also to be aware of crime as a possibility in our own lives, and we need to be ready to die and to feel besides that dying we are far from losing all that is worth having, but to court crime or to seek death would certainly be to deprive either of the very worth which has made it significant. And in much the same way we may very profitably recognize contradiction or controversy, whether personal or social, as a necessary condition of all valid experience, but not on that account are we to cultivate what is contradictory, to be always blindly spoiling for a contradiction. Like crime or death, if directly courted, contradiction would lose its peculiar effectiveness. The both-sidedness or the all-sidedness, which at once develops and conserves human life, is only

that which is maintained with a tenacious, even with a would-be consistent loyalty to each and every side.

So, although grossly misused if directly courted, this defect of experience has its place, even its ideal value, in experience, and what on the surface seemed an almost if not quite hopeless reason for doubt, has truly become all but transfigured, seeming now a source of real assurance. With Heraclitus of old, only perhaps seeing even more than he saw, we can glory in a world of strife. Doubting all things, we can yet believe that all things work together for what is real, for what is good.

But let me now put the result, so far secured, of our confession of doubt in a new way. For a life in which every thing has an opposite, every idea a counter-idea, truth very plainly, as has indeed been frequently said, cannot be a specific consciousness nor reality a fixed thing. Truth is not a creed, but a spirit. Reality is not a thing, but a life. And for being a spirit truth is only the more realistic? For being a life, reality is only the more substantial. Perfection, too, even the Perfect One, with whom we associate the true and the real, is no particular separate being in a certain established exclusive status, at once infinitely and passively excellent, but a power ever dwelling in the strife that makes for movement and poise. For being such a power, too, he is only more surely perfect, only more certainly infinite and excellent.

Such terms as spirit, life, and power are confessedly somewhat dangerous terms to use. Especially the first is liable to misunderstanding. Yet, whatever

common usage may be, when I say that truth is not a creed but a spirit, that reality is not a thing but a power, the reference is directly to that agent or principle of validity which has been found to hold our experience, naturally so faulty, to contact and intimacy with the real world. A spirit of truth, a principle of validity there is, to which the very faults of experience give witness, and in view of this we who doubt, who doubt the particular things, the creeds and the objects generally, the definite forms and ideas, the habits and standpoints of our everyday life or our scientific theory, may yet believe; we may believe in the real spirit, or power, which makes all things parties to the divided labour of a real life.[1]

[1] The worth assigned in this chapter to the contradictions of experience involves a standpoint which apparently is at variance with that of Mr. F. H. Bradley, whose book, *Appearance and Reality*, has occupied such an important place in the philosophical study and controversy of the last ten years. Of course, here is not the place for final criticism of Mr. Bradley, since the present examination of doubt is no such scrutiny of experience as his; it is far short of what would make a complete philosophical argument. Nevertheless, a word or two expressing the nature of the difference between his view and the view advocated here can hardly be impertinent. Thus, if I read him rightly, Mr. Bradley has argued from the paradoxes of experience to the complete, hopeless phenomenality of experience, while in this study of doubt the argument has been from the paradoxes of experience to a thoroughly realistic experience. Again, Mr. Bradley's Absolute is able to include the phenomenal, the relative and contradictory, only because this is so unsubstantial as to offer no resistance, while here there has not even been any question of inclusion. *All experience*, our position has been, *is informed with reality; its very contradictions hold an otherwise phenomenal, relative, changing experience close down to a real world;* and this position, I repeat, is at variance with what Mr. Bradley has *seemed* to say. See, however, a short article, "Relativity and Reality," in the *Journal of Philosophy, Psychology, and Scientific Methods*, Vol. I, No. 24, November, 1904.

CHAPTER VII.

THE PERSONAL AND THE SOCIAL, THE VITAL AND THE FORMAL IN EXPERIENCE.

CONTRASTS such as those in the title of the present chapter, the personal and the social, the vital and the formal, or instrumental, are always dangerous to clear thinking, and yet in spite of the danger no thinking can avoid them. They can be only relatively true; the terms in which they are couched cannot fail, sooner or later, from one standpoint or another, to make an exchange of the very things to which they apply, since opposition, as must be remembered, is always a most effective mixer, and therefore they can only punctuate the naturally chiaroscuro character that belongs to all articulate thinking. Nevertheless, used with self-control, they are distinctly serviceable.

In our recent discussion of the value of the essential defects of experience, and particularly when we came to associate social character with the habit of contradiction, a contrast of the personal and the social was very plainly implied, and some special attention to this contrast, I feel sure, will help us to comprehend more fully what was said at the time, and will be of great advantage also to our general purpose. It was

said that society was nothing alien, or additional, to the nature of the individual, that a basis for society lay in the very nature of experience, that so long as man was divided against himself and the labour of life and reality was necessarily a divided labour, the case both for society and for personal interest in society was clear and conclusive; but this was not fully to define the parts that are played by the individual person and the social group in the development and maintenance of human life. Some, for example, would fear more for the safety of the individual or the person than for that of society; and just in recognition of their fear, we honest doubters, who are now also at least potential believers, must look to our defences.

Long ago Plato drew an analogy of the soul or self, of the human individual, to society, and so, too, Aristotle, though not to society, but much more broadly to all nature, and the one analogy or the other has had a good deal of fascination, not to say intellectual inspiration, for thinking men ever since. Yet, so far as I am aware, at least one of the implications of the idea has never been fully stated or appraised, and this is much to be wondered at, since there is involved a strong case for both the personal and the social in the maintenance of experience.[1]

Plato found reason, will, and sensuous nature in the individual and analogously a thinking or law-making class, an official or military class, and an industrial or

[1] This paragraph, and many of the paragraphs that follow it, except for considerable revision and adaptation, were published some time ago. See an article, "The Personal and the Factional in Society," in the *Journal of Philosophy, Psychology, and Scientific Methods*, Vol. II, No. 13, 1905.

appetitive class in society; and Aristotle, in very much the same way, found the parts of the individual soul analogous to the vegetable, animal, and rational kingdoms of nature, and either of these analogies is simple enough and reasonable enough to be formally understood, if not at once wholly appreciated, with its mere statement. Still, in order to be sure of appreciation, in order especially to get the reflected light on the relation between individual and society, we must look to the facts and conditions which are presented very closely.

To begin with, such an analogy, dealing as it does with the relation of a part to the whole, has and should have, for a reason not hard to find, the freedom of the city of logic. Other than logical approval of it might be cited. Biology and sociology and psychology might be called in to give testimony. And out of the past, the more recent past at least as known to the historian of philosophy, Leibnitz with his *lex analogiæ*, or for that matter with the general import of his monadology, might be appealed to. But without tarrying for assistance from these quarters, highly respectable though they are, I make a simple, yet perhaps timely and—with apologies for so much emotion—soul-satisfying reference to the logic in the case, for after all biology and sociology and psychology are always under the restraints of logic, as well as alliterated with it; nor does the evidence of logic depend on mere technical acquaintance with given sets of facts. Thus, in these enlightened days, to say nothing of Plato's time or Aristotle's, how can the true part of anything ever dare

not to have an analogy, even a "part-for-part" or "one-to-one" correspondence to the whole in which it is comprised? And—this being, as in due time will appear, quite as important—how can a whole, be it society or nature or anything else, ever have parts without having also, actually or potentially, parts within its parts? In fact, given any divided whole, and the division, however far it may be carried, will always involve at least these three typical factors: (1) The individual as the part still undivided, though at the same time necessarily inwardly alive with the self-same differential operation to which it has owed its origin; (2) the group-part or class, which for the convenience of the adjective form may be known also as the faction, and which was so important to Plato in his analogy of the individual to a class-divided society; and (3) the all-inclusive whole. And among these factors in all possible ways—that is, even between individual and individual, or individual and group or group and group, as well as between either individual or group and whole—an analogy in terms of all the various elements of the original differential operation will persist. Such, almost truistically, though also perhaps somewhat subtly for ordinary purposes, is the logical condition of division or differentiation. Difference, like its limit opposition, is thus a great mixer, and division can be no mere separation or isolation of parts. The saying comes to my mind from somewhere, that though division may reveal distinct vertebræ, the vertebræ always conceal a spinal cord.

Analogy, however, although thus universal, although

applicable, as said, in all of the possible ways, must itself share in, must be quite under the spell of, the differentiation; it must have as many various forms as it has expressions. In every expression the relation must indeed be one of analogy, but it can never be of the same order or degree. That of the individual to the group or faction must be qualitatively distinct from all others, say from that of the individual either to another individual or to the all-inclusive whole. Nor can the much used and frequently abused distinction between small and large writings, as when history is taken as a large writing of personal biography or a social institution of some special phase of personal character, adequately represent the differentiation here in mind. Consider how various, internally and externally, are all the terms among which the analogies obtain. Thus, as of direct interest here, factional differences are bound to be sharper or wider, they are inevitably more deeply set and more openly exclusive of each other than individual differences, and in consequence the faction is, not indeed absolutely, but characteristically special or particularistic. Perhaps because of its intermediate position between the individual, which is the whole implicitly and potentially, and the completely inclusive environment, which is the whole actually and definitely or explicitly, it is, so to speak, significantly only one among many, instead of being, as in the case of each of the extremes, many in one. It conspicuously appropriates a particular character, and while not excluding any of the other characters which are incident to its own special production, it includes these on the whole only in a negative way, in

the way in which opposition includes what opposes it or action the reaction it always implies or in general any different thing the thing or things from which it is different. The extremes, however, as was said, are each "many in one," though in different ways. The individual, being still only potentially divided and being, as it were, the latest residence of the primary operation, is always in some measure directly and positively active with all the different factors of the operation, and this in spite of the restraints of any particular class-affiliation, and the whole, though macrocosmic with respect to the microcosmic individual, is at the same time qualitatively distinct, as distinct at least as the explicit from the implicit, the actual from the potential. Whatever a merely formal logic might say, a real logic requires that at most microcosm and macrocosm are only metaphors of each other. Even their difference of size would be quite enough to differentiate them at least as sharply as the difference of size differentiated imperial Rome from her prototype the Greek City-State. Can the whole and the part be one or many or many in one, can they be real or alive or conscious, can they be material, can they be personal, can they be anything whatsoever in qualitatively the same way? Men have often seemed to think so, but without any good reason. The faction, then, the individual and the whole, are qualitatively different expressions of the elements of the operation that has made them; and their relations, always dependent on analogy, must be various accordingly.

But now, to leave these questions of logic and to turn directly to the case for both personality and

society, no idea can be more immediately useful to us than that of what is often styled the unity of experience. Of course this unity, as it is real, must meet just those tests of reality, or of a real unity, that we have already remarked, but within the limits of a definition the unity of experience is neither more nor less than the totality of human relations. It is the experience-whole comprising all the phases of human nature; in other words, all the actual or possible relations of man to nature in general, or all the manifold states and activities, stages and events, however different, however seemingly contradictory, in human life. A real unity, as we know, being denied local habitation and a name, is necessarily a thoroughly differential unity; and human nature is analyzable in an indefinite number of ways. It is, to illustrate, physical, mental, and spiritual, or more elaborately, it is athletic, industrial, political, intellectual, moral, æsthetic, and religious, and in its social life has developed institutions answering to these different phases of itself. It is, again, lawful and lawless, old and young, conservative and radical, sympathetic and selfish. But whatever the mode of analysis or division or dichotomy, the unity of experience embraces all the elements, aspects, or relations that are discovered. In a word, even in the language of the simple logic indicated above, the unity of experience is only the all-inclusive whole, but here without regard to any distinction between what is actual or explicit and what is potential or implicit, out of which has sprung the differential operation that has made human society and human history, that has given rise to a manifest

social life, to the social class or faction and to the individual person.

And the person as the real individual, as the part that is still undivided, and that is therefore in itself quick with the differential operation, is thus the living, integral exponent of the unity of experience. He is, above all, its unformed or untethered vitality. In him every phase or part of what is possible in human nature moves with some power. He is religious, political, industrial; or spiritual, intellectual, and physical; or good and bad, conservative and radical, all in one; and characteristically he is each and all of these without the restraints of such visible forms or rites as now and again may become instrumental to their expression. Hence the familiar idea of the universality, which is identical with the indeterminate character, of any side of human nature; of the political side, for example, or the religious or the physiological, of the lawful or of the lawless. Not any particular political status, nor any particular religion, nor any particular body is universal, but the political or the religious or the physiological is universal—as universal, to repeat, as it is indeterminate. Not any particular lawfulness or lawlessness, but the lawful or the lawless is universal. Personally, just to sum up what has been said, all individuals are all things in one, and this idea, as it is understood, should correct that erroneous treatment of individualism, whether as a movement in the life of society or even as an incident of the scientific method of induction, to which reference was made in the discussion of the rise of science.[1]

[1] Chap. IV., p. 72.

But the story of personality cannot be told by itself. Whatever the person may be characteristically, he is never that alone, and before any estimate of all that he is or of all that enters into his life can be attained, attention must be turned to society, the other horn of our present interest, and particularly to the social class or faction. If the person in his peculiar character is general or all-inclusive with reference to the unity of experience, the factional life is special, particular, or partial; it is one-sided and outwardly exclusive. Sociologically as well as logically factional differences are, as has been suggested, wider and sharper than individual or personal differences. Personally all men are free, socially approachable, liberal in thought and act; not so factionally. Judged from its classes society is even a hot-bed of specialism, its classes always tending to become castes, and of hostility, its differences inducing open conflict. An illustration of this we have already seen in the rise of the profession of science.

Whence, to emphasize at once a most important conclusion, the typical relation of the person to the class is not, as so often said or implied, that of the particular to the general; instead it is that of the general to the particular, of the whole to the part, and significantly that of the vital to the instrumental. Yet, to say no more than this would be a serious mistake, for at least in two ways this statement must be modified. Doubtless the required modifications are directly consequent upon the nature and origin of the relation, but nevertheless they need to be carefully observed. Thus, logically and sociologically fac-

tional differences are not merely wider and deeper; just because more definitely set, they also imply higher development. Factional life may be special, but through the strength that union gives and the power and efficiency that spring from repetition and imitation, it attains a high degree of skill and insight. Again, factional life, like that of corporations, lacks soul; it tends to become formal and mechanical and in the sense that this indicates it is static. Hence its instrumental character. Between individual and class there is a difference very like that between impulse and habit, or organic life and mere physical process, or function and structure, or say human nature in terms of its life-principle, of its distinctly dynamic character, and in terms of its establishments or institutions. Accordingly the relation of the person to the class is indeed that of the whole to the part, but of the whole in a state that is formally undeveloped to the part more or less highly developed, and of the whole as a living, functional activity, the differential operation of the unity of experience, to the part as an institution or instrument.

From all this it appears that the labour involved in the maintenance and development of human life is divided between the person and the social classes in some such way as follows. The class life stands for analysis and special development and establishment; personal life for synthesis and vitality. The factional life of the class is specialistic, and reaps for human nature all the familiar advantages of specialism; the personal life is general or universal, and saves human nature from the disruption and the stagnation to

which specialism and its formal establishment always tend. The factional life is mediative and instrumental; the personal life is initiative and purposive. And while so to define the distinction between person and class, or in general to regard their relation as one of whole to part, even with the qualifications that were promptly added, may involve some unavoidable abstraction, and so some limitation of the view; nevertheless the view is as real and significant at least as the conditions upon which it rests. Even though persons may be differentiated from each other in an indefinite number of ways, no two being personal, materially, in the same way, no two having the same factional restraints, still the relation of whole to part, subject only to the distinctions of development and of dynamic or static character, remains significantly the typical relation of the person to the class. The person may be only a part of the class, as parts are merely counted, but in interest and possibility, in the fullest reach of his vitality, the person is larger than the class. And, if this be the typical relation, then not only is the story of the person seen to be inseparable from that of the class, but also there is clearly a real place in social life at once for the person and for the class. Factional life lacks completeness and vitality, and personality, the living, integral expression of the unity of experience, supplies these defects. True, a conflict of classes or factions may always be counted on, since the unity of the total life, which of course includes the classes, will prevent their ever being indifferent to each other, and this conflict will make for both completeness and vitality, but nega-

tively, indirectly, always as if from outside. Only through the person can vitality and completeness be secured positively and directly and immediately. Personality, on the other hand, lacks definiteness and practical efficiency, and only the special mechanical life of the class can supply these needs. So in the two together we see a most indispensable co-operation.

The person, furthermore, because of his particular class affiliation, with the attainment in the way of skill and insight which this imparts, is always naturally under constraint not merely to overcome the specialism, but also to apply the special training beyond the immediate sphere of its development to all sides of the nature that is within him. Out of the depth and breadth of his personal character, bounded only by the unity of experience, he must ever react against the narrowness and the factional ritual, and taking this ritual—or special professional technique—to be valid mediately rather than immediately, in spirit rather than merely in letter, must ever seek to translate his factional experience, its skill and its insight, to all parts of human life. Only so can he be true both to his special classification and to his personal wholeness.

But an insistent question: Is such translation possible? On the possibility the case for either personality or a class-divided society must finally depend. On the possibility hangs also the worth of this case to the general argument of this book. Logically, there certainly can be but one answer, and that an affirmative one, since analogy, the primal condition of translation, must be universal

among the parts of any unity as well as between any part and the whole. No two parts, it is true, can be literal, prosaic reproductions of each other, but metaphors of each other all parts are bound to be, and any part and the whole must also have this relation of the metaphor, so that any acquired, more or less highly developed power of thought or action, however special and however technical, may and must have meaning throughout the whole life of the person or of humanity. Accordingly, with the acquired freedom of any part, the metaphors, relating part to part, may, if not must, flash to the remotest regions of the person's experience-world. The left hand, with its unconsciously developed power, of course usually unexercised, of mirror-writing, affords only a very crude illustration of what this implies, and a very imaginative illustration is in the flashing of the morning light as it reaches height after height of the beholder's outstretched world.

The conclusions of logic in this matter have sometimes been questioned, if not defied. Quite properly, it may be, many people, and particularly many among scientists, have been in the habit of distrusting the leading of mere logic in the solution of their problems. But in this particular matter I think that no scientist has ever succeeded in making out a negative case. A few have tried to do so, have thought themselves for a time successful, and then in the end, though not without some reservation, have gone over to the other side. Probably their undertaking has been inspired by the extravagant views sometimes entertained, as when money-getting is supposed to educate

people to an appreciation of music and art, or a ready memory for one class of things to imply the same facility in acquiring a memory of another class of things, or skill in the use of tools to make a good dentist, or physical self-control or intellectual sincerity to ensure moral truthfulness. Whereas, if it could be remembered that no special training could ever be literally applicable beyond the particular sphere of its attainment, the relation of part and part of human nature being only analogous and metaphorical, and that in any scientifically observed case special training, when artificially acquired, or when a result only of a suggested and merely imitated routine, can hardly count as conclusive evidence, the problem would lose much of its interest, and science would be ready even to accept the logical solution. Logically, then, the translation is possible, and scientifically there is no real evidence against its possibility.

As to the translation being positively natural or necessary, as well as possible, the suggestion may not be impertinent that whatever is truly possible must be also real; that is to say, certain of realization or rather somehow and somewhere, in some manner and in some degree already in expression. Even the possible can never have been made out of, or sprung up out of, nothing. Moreover, the translation here spoken of, wherein one developed side of life flashes its message, more spiritual than literal, to another side or the other side of life, plainly can require nothing unnatural. It exacts only that all the different elements of our nature and experience, whether as personally or as factionally manifested, shall be for-

ever true to their origin. The apparent obstacles to translation certainly cannot be obstacles on the ground of the analogies of the various parts being only metaphorical instead of literal, for already in the original differentiation that has made person and faction, that has separated the parts, these have been overcome. The very nature of the person is their overcoming. The unity of experience must persist assertive and inviolable, whatever the divisions of experience. The distinct vertebræ must always contain a spinal cord that has a common origin with them.

And it remains to be said that since the person is thus at once the living integral exponent of the unity of experience and the member of some class or faction, translation is his most characteristic activity. In this translation, too, we see him a leader, or a party to real leadership, by nature. In it lies his true genius. Indeed, this translation is just that which makes the great leader or the great genius, for through it the person is ever showing himself superior to his class and training, and to the formal institutions that have brought him up. Factional life, as we know, develops through imitation and repetition, but personality through invention under guidance of the flashing analogies. Invention, too, the application of special development beyond the sphere of its origin, is only the psychological term for what sociologically is leadership. In the theory and in the practice of art, morals, religion, politics, science, and all the other special sides of experience, the factional and the personal are ever to be distinguished in this way—the one imitative, the other inventive. Witness

the familiar antitheses between the typical and the vital in art-expression, the formally ideal and the really pleasant in morality, the legal and the sovereign in politics, the orthodox and the spiritually alive in religion, technical skill and originality in science, and so on. These antitheses are all very important to the understanding of human experience, particularly of its history, but they are frequently seriously misapplied. More than anything else they show the personal ever asserting its superiority over the factional; the living whole, over the developed, established part; and always in order that the whole, overcoming the exclusiveness of the part, may translate and appropriate its acquirements.

There is thus a case for personality hidden in that historical analogy of the individual to its group-divided environment, whether society or nature, and there is also an equally strong case for society as something distinct, as something that has its own peculiar work to do. The rôles, too, that belong to personality and society are as distinct and as real, besides being as organic to each other, as in general are whole and part. But the person, at once a corrector of partiality and a leader, a distributor of special development, holds a conspicuous place and moreover takes a part that just because of his essential superiority to the definite and formal is of the greatest moment to our conclusions as to the nature of all positive experience. All positive, formal experience we found defective even to the extent of paradox or contradiction, but personality, characteristically, must be superior to this defect. Personality must bridge all

the divisions of experience, all the gaps in society, all the chasms of history. It must be, though perhaps one may not safely use the word, the very incarnation of that spirit of truth, that principle of validity and power for adequacy, which has already come to our notice more than once. Factionally experience is relative, phenomenal, divided against itself; factionally, too, it is at once formal and contradictory; but personally it reaches beyond the forms and contradictions, and is directly in touch with what is true and real. So the contrast between the personal and the social, the vital and the formal, shows itself quite parallel to that between the real and the phenomenal, the true and the paradoxical.

A business man says to a friend: "Personally, as you know perfectly well, I should prefer to do what you ask, but professionally I simply cannot, for you know also that business is business." A preacher declares: "Personally I should just like to speak out clearly and without restraint, but my church will not let me." Personally the soldiers in opposite camps exchange many courtesies, but factionally, professionally, they meet with rifle and sword on the battlefield. The father punishing his offending child says: "This hurts me more than you." And, in general, personally there are no divisions of life—all are all things together, and restraints that separate man and man are lacking; but factionally there is always restraint, and open conflict and inner inconsistency are unavoidable. The person is thus the medium, not of an abstract universality, but concretely, through his factional training and his leadership, of the universal life.

And, finally, the life of the person is gifted with a great faith, for it is in touch with an untethered reality; but, factionally, life is a constant doubting, for it is constantly narrow and it is a constant contending. So are faith and doubt as close to each other, as inseparable, as whole and part, as person and class, and with this conclusion we seem to have won for the doubter the right to say confidently: "My doubts cannot destroy me; I am; even in me there dwells the power that makes for reality; even in me, in spite of the very defects that the conditions of my social life impose, there lives the spirit of truth. Nay, even the social life itself, when mine as well as social, is also real and true."

CHAPTER VIII.

AN EARLY MODERN DOUBTER.

I REFERRED in an earlier chapter to the great Frenchman who boldly declared that his doubting was all that he could be certain about, but that this, being so very real, being indeed universal, left him a belief in himself, although only in his always doubting self. Descartes' belief in himself has interest for us, for while his thinking followed lines somewhat different from our own, he seems to have reached nearly, if not quite, the same very personal conclusion, namely, the right of the doubter to say: "I am."

Descartes was born in Touraine in 1596, and for the larger part of his life he was at least nominally a resident in the Paris of Louis XIV, Montaigne, and the earlier Jesuits. He was educated at a school of the Jesuits in La Flêche, and in the course of his mature life he published works of importance not merely in philosophy, but also in science and mathematics. His *Meditations* and *Search after Truth* are easily first among his contributions to philosophy. He died in 1650.

Yet not exactly with the Descartes of positive history, but with Descartes as a doubter, as perhaps the most notable progenitor of the modern confession

and the modern use of doubt, are we now directly concerned; for without the license of this broader view we might lose a large part of the advantage of the centuries that lie between Descartes' time and our own. He had many disciples, and these disciples uncovered much in the Cartesian philosophy that Descartes himself failed to see, or saw only imperfectly. He was not without faults, too, some moral and some intellectual, if the two are separate, and these faults we shall not consider, though the conscientious historian should never play to the sentimentalist by disregarding them. But with our present task we can afford to forget the faults; just as we cannot afford to lose the interpretations and corrections of the disciples. With interests as vital and personal as ours, we seek something more than matter of fact. Our interest is very near to that of the historical novel, but needless to say, this book is an essay in philosophy, not a novel. Past men and past times can be really useful to us, only if, belonging as we do not to the seventeenth but to the twentieth century, we really use them. What we ourselves are able to find in any period or in any human career is always truer or realer, possibly in a sense it is also better history, than what lay on the surface at the time or than what was seen, however profoundly, even by contemporaries. So much better did Descartes and all really great men build than they knew or even willed.

Descartes came into European life at a crucial moment. The period of the Renaissance, with its rediscovery of the old world and its stirring vision of the new, had culminated in the Reformation, not

merely in the religious reformation that set Protestant against Catholic, but in the reformation that appeared in every department of man's life—in art, literature, and science, in morals and in politics, as well as in religion. Man asserted his independence of established authority in any form. Man, not king, not pope, not even God, became the real centre of the universe. Justification by his own faith was simply overflowing with a meaning that knew no bounds in his experience.

But the birth of Descartes was fifty years after the death of Luther, and by the time he had reached his intellectual majority, as might well be expected, the Reformation had changed from a spiritual enthusiasm—whether among those who were its great leaders or among those who, not less devoutly, were bent on summarily checking its progress—into a practical, thoroughly worldly situation. The two opposing parties, without exaggeration, seem to have settled down to real business, and not less in the thought of one than in that of the other the end justified any means.

The society of Jesus was definitely organized and began its notable career in 1640, and although its members, the Jesuits, have given to history many wonderful examples of devotion and heroism, Jesuitry itself is synonymous with the extreme materialism to which the Roman Church resorted in its desperate defence against the Protestants. And on the other side, men became not less sensuous and worldly, giving as good as they got. They simply met, or opposed, like with like. Reading the history of the time with

its controversies and jealousies and intrigues and persecutions, one can only conclude that the honours were about even. If Catholicism felt justified in her acts of sensuous brutality, of almost hellish violence, which culminated in the massacre of St. Bartholomew, Protestantism was made the specious, yet not less welcome, excuse for worldliness, general materialism, and sensualism out of the Church and in it. Any religious reform, or reform of any sort, must always bring an unscrupulous lawlessness with it, and the great Reformation was by no means an exception to this rule. Extreme humanists, naturalists, atheists, sensationalists, social and physical atomists, Machiavellists, sceptics and opportunists of all sorts, swarmed in every capital of Europe, and especially in Paris.[1]

But the extravagant, more or less unconventional things of any time are often the best signs of its inner life, since in them we see a few men boldly, if not prudently, stepping over the bounds of custom, and sometimes even of decency, and giving expression to what is actively present, though often suppressed or concealed, in the lives of all. Thus contemporary with Descartes, and from one side or another expressing the materialism of his day, there were at least three very significant movements, all of them endorsed by parties, of course under different names, from both of the contending churches, or from their outside echoes or reflections, and all of them at least in some degree when not in great degree beyond the bounds of common conventional respectability. These move-

[1] See an article by H. C. Lea in the *American Historical Review*, January, 1904, "Ethical Values in History," especially p. 238 *seq.*

ments in one church or in the other, or in neither, as the case might be, were, first, a scoffing scepticism; second, a dogmatic mysticism; and third, a most visionary gnosticism.

1. Vanini (1585–1619) in Italy, Montaigne (1533–1592) in France, and Bacon (1560–1620) in England, among many others that might be named, were more or less extravagantly, not mere doubters, but satirical, often derisive, scoffing doubters of everything in human life. Conceit of knowledge, whenever asserted, in church or state, in everyday consciousness or in science, was declared idolatry and held up to constant ridicule. Could man's wisdom at its best be anything more than a blinding folly?

2. And religion, the religion of a few, as if in acknowledged sympathy with these sceptics, surrendered everything but God—God being more a longing than an actual fact; a spirit than a positive thing or person. Even within the Catholic Church the Oratory of Jesus, a society energetically opposed for good and sufficient reasons by the Jesuits, was organized in the interests of a purified, truly spiritual Christianity; and among those who had broken with the Catholics appeared new sects of many names, such as the "Friends of God," "Collegiants," and the "Brotherhood of the Christian Life," but with one ideal, the direct, untrammelled worship of God. "God is," they proclaimed in so many words; "and God, just God, is all. Church and creeds and rites and priests are hindrances, not helps, to true religion." This attitude, commentary as of course it was on the conditions of the day, had almost more satire in it and more doubt than any of the words

of the most active scoffers; it was so unconscious; so quietly and so piously it picked up the crumbs that the scoffers left. Indeed, the sceptics and their devout, pure-minded contemporaries, Pierre Charron (1541–1603) and Jakob Boehme (1595–1624), both advocates of religious purity against theology and sensuous ritual, must be said not to have engaged in separate activities, but to have shared the labour of a single activity. Scepticism and such mysticism are but two sides of the same shield.

3. But with the scoffing scepticism and its complementary counterpart, the dogmatic mysticism of religion, there was associated also a most visionary gnosticism. Thus the science of mathematics was heralded as a key to all the secrets of the universe. A few simple applications of mathematics to physical phenomena had been successfully made by the scientists—for example, by Galilei—and ere long certain men in the world of the intellectual life went wild over the possibilities of mathematics. Obliged, as soon they were, to abandon every other field of knowledge—theology, politics, material science, tradition, and convention—they needed but little encouragement to give themselves heart and soul to this last resort. Their enthusiasm for mathematics doubtless had a deeper source than this simple account of its rise would suggest, for an intellectual atmosphere in which just such a purely logical, abstract science would develop was the natural product of medievalism; but Galilei's successes may be said to have precipitated the movement, and in any case for many mathematics became, both in its principles and in its method, an intellectual

cure-all, and in consequence not only were remarkable advances made in the science itself, but men went to the extreme of applying the methods and the formulæ of mathematics in every conceivable direction. Religion, morality, and politics, as well as natural science, were all subjected to mathematical treatment. Among the surviving monuments to this activity the *Ethics*, so called, of Benedict Spinoza (1632–77) is certainly the most noteworthy; a work of five books on God, mind, emotions, bondage, and freedom—each with its special quota of axioms, propositions, corollaries, scholia, and the like, and the procedure of the whole amazingly consistent with that of Euclid. Excuse, also, a personal reminiscence. I can myself recall how in the enthusiasm of a first course in geometry I formulated a Euclidean proof of the proposition: Knowledge is power. I, too, had my axioms, my special demonstrations, my corollaries, and my final Q.E.D.'s. But any present-day resort to mathematics or its methods is only a shadow, or an echo, of the movement of the seventeenth century. At that time it was a movement of last resort and all the passion of a deceived intellect, of a mind given over to the most far-reaching doubts, and a disappointed faith, once more acquiring hope, was present in it. The truths and methods of mathematics—what but veracity incarnate, the very mind of God made manifest to mankind!

Nor, furthermore, does it take much reflection to appreciate that mathematics was after all a very appropriate form for credible knowledge to take in a time of scepticism and of religion turning to purism.

Trustworthy knowledge of actual things—that is to say, real concrete knowledge—being held impossible, there was nothing left but knowledge of the strictly formal relations of things. Formal principles, just like those of mathematics, are altogether innocent of the confusion in actual things and persons, in particular events and current issues; and accordingly in the seventeenth century, just by reason of this innocence, they were peculiarly timely. Doubt seemed quite unable to touch them; controversy was turned to agreement before them; and even a truth-loving God, so to speak, could appeal to them in support of his right to rule the minds and the lives of men. You and I might question the reality of the things we count or the justice of the ratio between our wealth and the wealth of certain others in the world, but we could not easily question that two and two are four, or in matters of wealth that one thousand and two thousand dollars are in the same ratio as two million and four million. Such knowledge as this may not settle any actual quarrels that we have, for example, over the number of acres we own or the taxes we pay or the prices charged by our butchers or grocers; but what of that? The quarrels are idle any way, and our mathematical wisdom, being exact from the start and self-evident, is a basis of perfect agreement between man and man and men and God.

In short, mathematics is exact and universally credible just because it is so empty and so logically formal, being always "in the abstract," in that ideal, wholly blessed region, where there is no disputing, where all men readily admit anything that can be

suggested; and its being exact for this cause made it the only credible knowledge for Descartes' time, a time at once of scepticism and mysticism. With Vanini, then, and Charron, who were separately engaged, as was remarked, in a single activity, we may associate the mathematicians of the day, among whom none were more distinguished than Descartes himself and the members of the Cartesian school. To Descartes we are largely indebted for the Analytic Geometry, and Pascal did important work in the Theory of Equations.

In rough outline we now have the times of Descartes before us, and with deepened meaning I may say again that Descartes came into European life at a crucial moment. Materialism was rife, not merely theoretically among a few scientists and philosophers, nor practically in some isolated class of dissipated human beings, but really and more or less openly everywhere in the whole life and feeling of society. Even the devout played into the hands of the worldly by their very purism. And an accompanying doubt, cropping out significantly, now in positive irreverence, now in mysticism, now in intellectual formalism, appears to have thoroughly possessed the minds of men.

There was, too, in Descartes' day a growing sensitiveness to the paradoxes of man's experience which have occupied so much of our attention. Nothing was what it seemed. One writer boldly declared—not much later—that France, nay, the whole world, could not be happy until all should turn atheists. The boast of Louis XIV, "I am the State," whether literally made or not, was hardly less startling. The sensualism of

the Catholic Church or the Pharisaism of the Protestant was flagrantly paradoxical, and was keenly felt to be so on all sides. Men turned doubters perforce, and in the fact that with their scepticism rose also a movement at once of individualism and cosmopolitanism, we cannot fail to see how the course of history illustrates the conclusions of a previous chapter. The time was one in which through its humanism, or its cosmopolitan individualism, civilization was to reap the harvest from the medieval organization of society.

Descartes, in spite of, or perhaps because of, his training at a school of the Jesuits, seems to have caught the spirit, the real meaning of his time, getting behind the mere letter of their instruction and of their point of view. Only mathematics gave him any satisfaction, and he left the La Flêche school in the first place conscious that he had learned little or nothing, in the second place curious about the possibility of men ever knowing anything, and in the third place evidently through the influence of mathematics strongly prejudiced in favour of introspection, or of thought conducted independently of things, as the only possible way to certainty. This education, then, and its outcome, true as it was to the life of the day, fitted Descartes for his life work, which was nothing more or less than the erection of a system of philosophy on the basis of a thorough-going confession of doubt.

Descartes entered upon his great task by taking his day at its word. St. Paul, addressing the Athenians, reminding them of one of their own temples, and quoting their own poet Aratus, was not more tactful,

Thus, as if speaking directly to the sceptics about him, Descartes doubted everything, because he found, not only in his own consciousness, become too reflective for implicit belief, but also in the wide experience of his race, that everything was dubitable. He doubted church and state, science and society; and he went even farther than this. Also he boldly doubted mathematics, so long his own support and the reliance of many others in his time. He did not know surely that there might not be an evil spirit in the universe, a spirit of deception, which even in mathematics was obscuring the mind's vision, making it see things not as they are, but as they are not. Deception was real enough and obvious enough in life at large to make such a suspicion as this at least plausible. Moreover, the notion of an agent of evil in the world had been a commonplace for centuries. It was just a part of that medieval training. So although nothing could be said with certainty either way, the plausible mischance had to be faced; mathematics went the way of all doubtful knowledge, and man was left with literally nothing but his doubt, his universal doubt. "*Dubito*," said Descartes; "to doubt is my inmost nature"; and speaking so he at once marked the first step in his reasoning, so important then and now, and in the simplicity and directness of real genius reported a great, deep fact of his own experience and of that of his time.

But universal doubt is a *real* experience, being real just because universal. Nothing ever is real that is not universal. What is always and everywhere is just the mark of something that really is substantial. A real

experience, however, real because universal, be it of doubt or of anything else, means a real self, so that in the always doubting self Descartes found reality, or a real self; and this always doubting self he further characterized as a thinking self. In other words, the real thinker was for him the universal doubter, and, contrariwise, the universal doubter was real, a real thinker, a real self. Before Descartes' time, to speak generally, men had identified reality with fixed condition or possession, with specific knowledge or established power or definite prerogative, divine or human, and truth was an object of faith rather than thought, say an unchanging programme for life rather than a pure principle—there is such a wide difference between a principle and a programme! But Descartes, as we have seen, identified reality with loss or privation, with such an empty-handed thing as doubt; he recognized no self but the thinker, and no thinker but the doubter. We always feel the pathos of those who, suffering constant privation, find and often declare that life is very real, and yet the sense of reality that comes in this way—namely, in the way of a privation that denies reality all residence in positive experience—is especially strong, and the pathos we feel is certainly not all. Something else hard to name appeals to us, too, and changes the pathos into a nobler because a more positive feeling—good will, perhaps, or honour—since the persistent holding to reality commands a deep respect. Yet, putting this more positive feeling apart, only the pathos of Descartes' real self, real because a thinker and thinker because a universal doubter, can occupy us now. Enough if we see that

the reality was as indubitable as the universal doubt, the self always being real up to the reality of its experience, and that the pathos is not more for him than for the sceptics and mystics and mathematicians of his time. But, again, in the Latin words, burdened, as so often the Latin has been, with the experience of all Christendom: *Dubito, cogito; ergo sum.* I doubt, I think; I as doubter and thinker am.

That "I am" seems a sort of epitome of the humanism, not to say of the pathos of the humanism of the time. Man had lost everything but his own self, his lacking, longing, always seeking self. Montaigne put the situation plainly when he said in so many words, that portrayal of self was the beginning and the end alike of physics, the science of outer reality, and metaphysics the science of all reality. Man had been left with his mere self, robbed of beliefs and traditions, and abandoned by everything but his doubts and the empty companionship which these afforded, but to that, an unshaped thing with an undefined activity, real only for what it did not have, he clung tenaciously and often enthusiastically. And Descartes spoke for him: *Knowing that I have nothing, I am.*

But in this self that was real only because always lacking, always doubting, Descartes found a priceless treasure. Every one is familiar with the principle of Christian theology, that the conviction of sin is a real promise because the actual beginning of salvation, and every one has some appreciation of this principle. It is a principle, too, that no priest ever made or could ever unmake, belonging as it does to the very nature of conscious creatures. In like manner,

then, Descartes recognized in the consciousness of doubt, or say of intellectual error, the real promise, because the actual beginning or even the very presence of veracity in knowledge. The doubter, conscious of error as he must be, was never without and never by any possibility could be without a sense for truth, an idea of veracity. Doubting all things he must yet believe in truth. Plato said centuries before that mere opinion, however false, was nevertheless always in love with true knowledge, and this Platonic love Descartes found in the doubter's conviction of error. In Plato's spirit Descartes insisted that doubt was a constant yearning for truth, a persistent faith in it. Doubt was informed with truth, with the idea of truth, very much as one has the "idea" of a thing that one cannot master. Man might be a doubter of all things, then, but in spite of his doubt he must believe in the reality of things, not exactly in the individual reality of each and every thing, but in reality in and among all things. For him, doubting and self-conscious, there must dwell in the world a realizing nature or power, an agent of perfect veracity, checking any experience from being altogether deceptive. And, for the present, to narrow our attention to a single phase of the doubter's natural idea of veracity, as Descartes reasoned about it, truth and everything that goes with truth, perfection and absoluteness in all its phases, could not be solely human if to doubt was human. They must, in consequence, be divine. So God, a spirit of truth and righteousness, was real, as real as the real self of always doubting but ever truth-loving man. *Dubito, cogito; ergo sum: etiam*

Deus est. I doubt, I think; as thinker and doubter I am: and what is more, God, veracity incarnate, is also.

And here begins or began a great controversy, nor can the issues of it be said to have been wholly settled even to-day. What did Descartes understand when in this way he proved to himself the existence of God? Was only the God he seemed to have lost once more restored to him, and restored intact? Did he merely justify, and so return to its old place of authority, the traditional theology of his day? Was his doubt, as some would view it, not his own genuine experience, but simply the conceit and pretence of method? These questions need an answer, for their answer affects not only Descartes' regained religion, but also his regained real world in general. So many have been disposed almost to laugh outright at the simple-minded Descartes for his doubting everything from matter and mind to God, only in the end to get everything back. They have seen him as one chasing the verities out by one door only to welcome them with outstretched arms as they run in at another that had been left open for their return; and this view of him has been strengthened by the fact that conservatives in religion the world over have made Descartes their victim by appealing to his proof, borrowing for themselves his philosopher's robes, as if these could be easily assumed and as easily put off. But as to the justice of such a view there is little if any good evidence. Matter-of-fact history is not our first concern here, as was said; yet, whatever may or may not have been uppermost in Descartes' mind, the doubt of his day was both general and very

genuine, and the final worth and validity of his thinking lies wholly in that, not in his or any one's mere logical gymnastic or verbal strategy. Moreover, for reasons which hardly need to be given, the strong probability is that, notwithstanding his well-known lack of courage in openly living up to or even thinking up to all the consequences of his reasoning, he did feel in his philosophy not a mere recovery of what had seemed lost, nor a cunning apology for the old, but the birth of a new point of view; and, if this possibility should be verified, among other things the conservatives, who have been borrowing so much support, have been little if any better than parasites. Still, even the probabilities in the case are relatively insignificant to us, since the people of the time and of later times, and we ourselves from the scepticism and mysticism of the seventeenth century, have learned to think of God with a fulness of meaning never attained before, as—what shall I say?—not a definite truth, but the living spirit of truth; not a passive perfection, but a perfect activity; and not even a divine person, in the sense of one more separate being of consciousness and will to inhabit the universe, but the moving and conserving power of all personality —the very active principle of reality present in the vicissitudes and conflicts of our existence. And, such being the outcome of history, we have to take it as really the meaning of the great Frenchman's formulæ. We put aside the controversy, then, with the simple reflection that results in history or anywhere else are at least very hard indeed to conceive if they are anything more or less than realized motives

perhaps the realized motives of a man or men building somewhat beyond their clearest knowledge. Whatever has come about must always be what more or less clearly men have been feeling after.

The God whom Descartes really proves to his time, and still more positively to us, must surely be the God not of a satisfied unquestioning believer, but of the universal doubter who loves truth and whose doubting and loving make him the always curious thinker; a God without visibly or even quasi-visibly fixed or specific character of any sort, since with his nature set to such a character, tethered like a beast to a stake or like the sun bound to an orbit, he would not be and could not be divine enough—which is to say, veracious or perfect enough—for a universal doubter's curiosity; a God, then, who has the divine character of true infinity, who is, too, a spirit in fact as well as in word. Infinity certainly cannot belong to a being that is apart; such a being would at once belie his nature; and "spirits," divine or human, must not be supposed to be, like Elijah, the merely translated beings of this visible and tangible world, for they can belong only to the invisible and the intangible, which is in this world and of it, in its knowledge, in its love and strife, in its changes of all kinds, in its work and in its suffering. Yes, a truly living God, living here and now, is the God of Descartes' proof; the God of just that world of movement and conflict, of poise and reality, to which the differences and above all the contradictions of experience, as examined by us in preceding chapters, have already borne witness. Let us recall how we were able to say that the very conflicts of human

experience were the wisdom of God. And if this all amounts to saying, as apparently it does, that only Descartes' universal doubter, who loves truth too much ever to claim its final possession, can believe in a *real* God, then we have reached something that will surely repay the most careful reflection.

Some have criticized Descartes for what they regard as a fallacy in his reasoning. He jumped, they claim, without any real warrant, from the idea of a thing as his premise to the actual existence of the thing as his conclusion, from the idea of veracity, so necessary in the consciousness of the doubter, to the substantial existence of a perfectly veracious being, as if, to use their time-worn analogy, the idea even of the very smallest sum of money would make the money itself materialize in somebody's pocket. But, whether or not Descartes fully understood his own thought, this criticism is very superficial, and it gets only a specious cogency from the same matter-of-fact history that we have already pushed aside. No idea, however clear, however necessary even to the consciousness of a doubter, of perfect truth could ever conjure into existence the unworldly, independently existing, spiritually and intellectually isolated God of the Middle Ages; and for that matter one might say, I think quite pertinently, that money not in the pocket is something less than real money, or—which comes to the same end—that the idea of money, if the pocket be indeed empty, must imply some sense of the emptiness as well as of the money; and with such an implication the idea taken for its full meaning is no such conjurer as Descartes' critics have chosen to imagine it. After

all the "mere" ideas, or the "mere" things in general, that appear in controversies, are only ingenious ways of packing the jury. An adequate idea—that is to say, an idea taken just for its full meaning, for what it denies as well as for what it affirms, for the complete universe of its discourse—does and must answer to existence; yes, and to substantial existence too. So, again, the God that Descartes by the doubter's idea of veracity proved to his time and to us, if not also as clearly to himself, can have been no mere substantial existence wholly outside the doubter's life and consciousness. In such case the universal doubting would indeed have been only the insincere verbal strategy of a conservative, the conceit of purely artful method, and the jump objected to would have been quite necessary. But Descartes' God answered to just the idea of truth which a universal doubter could honestly entertain; to truth realized only in and through doubt; a God, living in and with the seeking, struggling consciousness of the doubter.

Furthermore, for a being, call him doubter or thinker or what you will, whose very nature in deed and in word is awake to a sense of lack and is in consequence making a continued outcry: "Never this, but always something else, something fuller and realer, something including and using this, something maintained by the very conflicts of this,"—for such a being very plainly there never can be anything that is wholly and hopelessly beyond, that is not potentially and so actively real in him; there can be no outer nature, but an including and developing nature, and no transcendent God, but an indwelling, ever uplifting,

forward-bearing God. Exactly such a being was Descartes' real self, the self of his *I am*—"I as thinker and doubter am"—and this self had need neither of struggling with nature nor of wrestling with God in order to get one or the other on its side, for in its doubt, in its constant confession of incompleteness, even—though this is a flagrant paradox—of its own reality as in a sense always outside or beyond itself, it had won the supreme victory at the start. Negatives are always such very sweeping, comprehensive things; and to be, so to speak, one's own negative, to be real and lacking, is somehow to include all things within one's own life and interest. If I may apply an ordinary phrase in an extraordinary way, to be always "beside oneself," always doubting, always wanting, always striving, or to be, in the words of earlier pages, ever and always divided against oneself, is to have enlisted man and nature and God for ever in one's service.

There is truly such a difference between programme and principle! It is the difference between medievalism and modernism, between supposed finality and recognized and asserted movement, between supernatural authority and the authority of natural growth. Enthrone a programme, and it is arbitrary and exclusive; it claims, as it must, the sanction of another world; it hopelessly divides human nature as personally embodied or as socially organized; it makes life and its sphere irrational and so dependent on a blind faith: but a principle, enthroned, draws all things into itself, using to its own constant realization even the changes and differences of life, making faith

and reason lie down together, and transfiguring both a brutal nature and an inhuman God by revealing them as not indeed formally but vitally rational, and not indeed mortally yet humanly alive. In Descartes' proof of God we see the birth of modernism; the programme deposed; the principle set in the place of authority.

Finally, then, Descartes did not simply restore what had been lost. Though we have been regarding only the religious aspect of his philosophy, we can see in general that, just as not the old God, but nevertheless God, remained to the doubter's life, so also not the old verities at large, yet nevertheless the verities, or not the old reality, yet nevertheless reality, remained also. Man, after all his doubting, even because of it all, was enabled to return to the world of all those "isms," the all-pervading materialism, the scoffing scepticism, the dogmatic mysticism, and the intellectual formalism, with a new spirit, a spirit of real confidence, a spirit of hope, a spirit of life, that just by reason of its wants and conflicts believes itself not only very real but also fully worth while.

And travellers to-day visiting the streets of Paris or going anywhere the doubting and despairing world over, would do well to imagine Descartes, as the modern doubter, travelling and thinking with them.

CHAPTER IX.

THE DOUBTER'S WORLD.

THE doubter's world is a world in which, as we journey, we shall discover four features that are especially noteworthy and that accord fully with the principles of Descartes as well as with the findings of our own confession of doubt. Thus, in the order, or suppose I say in the itinerary, here to be followed: (1) Reality, without finality, in all things; (2) perfect sympathy between the spiritual and the material; (3) genuine individuality; and (4) for whatever is indeed real, immortality.

I. REALITY, WITHOUT FINALITY, IN ALL THINGS.

Doubt is only a particular state, or phase, of consciousness, and it is worth while to observe that any state of consciousness whatsoever, any attitude of mind, must assume or postulate something real. Indeed, this assumption of reality is so positive that no consciousness is ever without some will to believe, while no will to believe is ever without some real object believed in. Can there be smoke without some fire, or a seeming without some being? Were either of these things possible, then by the same token there could also be a willing without some doing or a wanting without some having. To be conscious of some-

thing, then, means not only that something is assumed and, if assumed, willed to be, but also that something really and truly is. Of course, the consciousness is; but, however subjective, the consciousness must have more than its mere subjectivity, than its mere seeming or wanting or willing, being in some way genuinely objective or grounded in reality. In a word, all consciousness implies and demands, postulates and possesses, a real world; possibly not just the world formally presented to it, but nevertheless reality, and reality, too, in which somehow the presented world has a place and part.

This may or may not be axiomatic, but at the very least it is very near to being axiomatic, and, near or far, it quite agrees with the conclusions to which, although along somewhat more specific lines, our own thinking and Descartes' thinking have been constantly pointing. As Descartes might have said, there is no consciousness without a thoroughly warranted "I am," and no "I am" without an also thoroughly warranted "The world of my consciousness is and is objectively real." But in implications about reality the doubter's consciousness differs from the believer's consciousness; not by any mere denial, for unqualified denial must be wholly alien to honest doubting, and the doubter is himself a believer, but by a peculiar assumption as to what the reality is. Simply doubter and believer, so far as they may be taken as independent characters, do not live in the same real world. Thus, for the distinct believer—that is to say, for the specifically dogmatic believer, for him who is, or who for the moment may be supposed to be,

tenaciously and immovably loyal to some specific body of doctrine and to some specific manner of life—reality is always tethered to some stake; while for the doubter it is too real and too free to suffer any such bondage, being infinite and all-inclusive. For our doubter, at once fully self-conscious and honest, no possible experience can ever be in itself real and final, nor, on the other hand, can any possible experience ever be altogether unreal and illusory. His reality, I say, must be at once free and all-inclusive. Indeed, it could not be either of these without being the other. For him nothing is *the* reality, just because *all* things must belong to reality. For him, again, the world's reality is nowhere, just because everywhere; in no defined thing fixedly and completely, just because in all things—in them not merely distributively, it is true, but as they work together; and invisible and intangible, indeed generally unknowable, just because any consciousness is necessarily limited to the definite and inadequate mediums, or forms, of positive knowledge.

So the doubter has a real world, but his own real world. Moreover, in the great freedom of its reality we see how all things taken individually or distributively, must be, as the word is used, only "relative"; and in the perfect inclusiveness, how nothing, however "relative," can ever be unreal. Relativism and scepticism have been perenially associated, but relativism is not a nihilistic, but a deeply realistic philosophy; it is just the sceptic's natural realism. All things are "relative," but only because reality is at once free from anything, and yet inclusive of all things. What is relative is

thus not flatly unreal, as is often supposed, but significantly both real and unreal or neither real—not real to itself alone—nor unreal—not without its part and place in whatever is real. The sceptic, though always a relativist, is thus also a most profound realist, and the nature of his realism must help us greatly to our view of the doubter's world.

Moreover, Descartes and his followers were also nativists or intuitionists, and, at least for the freer interpretation here permitted, their nativism was of a peculiar order, and it involved, accordingly, a world which was real in a peculiar way. Usually nativism has stood for the assertion of certain inborn and so necessarily valid and unchangeable ideas or characters or powers; as when men contend that particular ideas of God are unassailable because immediately intuited as a part of man's very being, or again when men declare a particular genius to be born, not made, or insist that a voice of conscience born, not bred, in them, tells them explicitly to do and even to make others do this or that specific thing, to live and make others live in this or that specific way, to accept and make others accept this or that specific programme of politics, morals, or religion. Furthermore, nativism of this prevalent type not only has claimed final validity for what is thus inborn—or given independently of the changing conditions of experience—but also has commonly punctuated this claim by viewing the inborn, or the intuited—for example, the dictates of conscience—as direct, immediate, unequivocal signs and mandates of God himself. Genius has been not human, but divine. The intuition at large has

passed for nothing more or less than a supernatural revelation. But such an understanding of the innate, though serviceable beyond measure to the "specifically dogmatic believer," and though implying too, as of course it should, the natural, appropriate world of such a believer, does not agree with the principles of Descartes.

Such an understanding of the innate can imply only a world not merely of definite, substantial reality, but also of definite, substantial unreality. How real to some people, how definite and substantial the "unreal" is; how brutally fixed and yet how alien to what they are given to finding real. They are nativists of the conventional type, and for them the negatives of all things are as fixed and as really or as substantially not this or that as the positives to which what is innate for them bears its special witness. Their world, in short, is a world of tethered error as well as tethered truth, of hopeless, unmixed evil as well as a wholly untainted, unassailable—and why not say also hopeless?—virtue, of absolute and effective lawlessness as well as an unswerving law, of a free and omnipotent devil as well as a free and omnipotent God; for, in simplest language, the rule is a very poor one that does not work both ways. A world, however, which is so constituted, calls emphatically for revision of the view that imparts its character to it. Where the unreal is as real as the real, the evil as effective as the good, the false as conclusive as the true, there is certainly need of some second thinking. As some good Irish philosopher might put the case, if just this is wholly good or true or real, and just that is wholly

evil or false or unreal, then *the* good or *the* true or *the* real cannot be exclusively just this, *the* evil or *the* false or *the* unreal cannot be exclusively just that, and *the* innate, responsible for a world so made, cannot be just in terms of certain fixed ideas or characters or powers. When, forsooth, has the manifest existence of evil in any form, of intellectual or moral error, of political anarchy, of religious heresy, or even of natural violence, not shaken man's conceits about what is and what is right? The very conceits—and this the more as they are definite and assertive—help to make the manifest evil, very much as a definite law has its part in making a particular crime, and the evil so arising, as it is distinctly manifested, cannot fail to assail and unsettle the conceits.

According to the Cartesian nativism, on the other hand, particularly as it was developed by such men as Malebranche and Spinoza, the innate, which is always at once the final appeal of man's conceits and the conclusive witness to what is absolutely real, was indeed one with the divine or supernatural, but it was perhaps just by reason of its truly divine or supernatural character and origin untethered. How could the universal doubter be born with a specific knowledge or a specific programme of anything, when the definite or fixed, the specific in any quarter whatsoever, must always be a possible object of doubt? Only the purest principle, or spirit, is impregnable against the attacks of the sceptic. To doubt such a principle is indeed only to enhance its importance. The sceptic, then, the universal doubter, is born only with, and what is more he cannot be born without, a real

interest and constant faith in truth, in true knowledge and right action, but no special experience can ever compass the length and the breadth, the depth and the height of this interest or this faith. He has a native love for truth and righteousness, a belief in them, as real and as inviolable, as universal and as necessary, as his doubt; but the very doubting in him forever saves both the truth and the righteousness from being destroyed by satisfaction or crucified by any final embodiment. He loves and he trusts with all his heart, and he lives in a world that forever serves the truth and the righteousness of his love and faith.

So, taken at least for what he promised, or for what he said between the lines, Descartes was a nativist without the nativist's disastrous bondage to form and creed, to fixed character and specific programme. He was a nativist, but for him the innate lacked its self-destructive definiteness; it was just a spirit or principle, or what I have also called a life or power, ever present not in some, but in all experience, and so at once sanctioning all things, and, because able to find perfection in none alone, each single thing being relative, sanctioning also a constant conflict between things as good or true or real, and things as bad or false or unreal. Whatever is relative is necessarily, so to speak, both-sided or divided against itself. The relativity *is* such conflict. Before the judgment-seat of the innate, in short, all things, being relative, must be parties to conflict both individually and collectively, nor is their conflict anything but an old story to us. All the paradoxes of experience have been evidences of it. The conflict apart for the present, however, the mean-

ing of Descartes' nativism is just this: truth in all experience, reality in all things, and reality, or truth, a principle, not a programme. Just this, too, discloses to us the nature of the doubter's real world.

In the last chapter we saw in particular the idea of God which the universal doubter would naturally and consistently entertain and cherish. We saw how in the proof of God Descartes, deposing the programme, set the principle in the place of authority, and how in consequence God became identified with all that was human, with all the seeking and striving, the hoping and despairing, the erring and the suffering, of man's life. God's nature just drew all things into itself; the very conflicts of life were his perfection; the incongruities of experience were his infinite wisdom. But the doubter has a metaphysics, or cosmology, as well as a theology; Descartes lost and regained a world as well as a God; and the doubter's metaphysics, or cosmology, proceeds from this simple creed: *Reality in all things.* So runs the creed's supreme article, and its two important clauses are these, equally familiar to us: *Reality without form or residence*—real as a spirit, not a programme, and: *Nothing finally and fixedly real in itself, yet all things working together for what is real.* With this creed clearly in mind, moreover, we may look out upon the world and see things that possibly we have never seen at all, or not seen so clearly before.

We see that just because reality is so profound, so spiritual, and so inclusive, just because nothing can be absolutely real in itself, all things must be "relative" —this we saw before, but have we ever quite under-

stood the meaning of relativity?—and must be relatively *at once real and unreal.* Perhaps I am still adding little, if anything, to what has been said already, but distinctly and emphatically the real world can comprise only things that individually are relative, relatively real or good or true, and that being thus relative secure their place and part in absolute reality only by being also relatively unreal or evil or false. The very conflict of the relative *ipso facto* puts it in perfect unity with the absolute. And so, seeing this, we see not only a world of relativity and consequent conflict, but also a world whose universal relativity makes for a genuine absoluteness, and whose conflict can never be in vain, but instead is always realizing and effective. Thus, all things relative, that is to say all things at once real and unreal, good and bad, true and false, are in the constant service of the absolute; and then, only employing again the language of religion and, if not exactly interpreting, at least adapting some well-known lines:

> All service ranks the same with God—
> Whose puppets, best and worst,
> Are we; there is no last or first.

All things, serving reality, are whatever they are together; yet could not be that, were there not a constant conflict in and among all things. All men serving God are whatever they are together; yet, in like manner, could not be that were human society not a sphere of conflict harsh and unceasing.

So we find ourselves well upon our way in the world of the doubter—and what a world it is! No

finality, because so much reality. Conflict, forever necessary to its effective realization. Relativity, that is to say finiteness, of all things, of all things in it, just for the sake of its own true absoluteness, just to conserve its own actual infinity.

And, also, in such a world human life, individually and socially, gets new interest and vitality. There is given to human life so much fellowship, and yet, at the same time, so much hostility and competition. Society and the individual, though neither loses its own peculiar importance, are so vitally intimate with each other. We cannot, however, enlarge now upon this point. Another consequence of the peculiar realism of the sceptic has a more pressing interest.

Is our universal doubter naturally and honestly an evolutionist or a creationalist? Of course, he may be neither, or he may be one or the other with a meaning different from that usually recognized. Terms like these are so very hard to control. Conceivably the doubter, a very versatile character always, might even be both evolutionist and creationalist. But, as the terms are commonly used, he must be said at least to have his face towards an evolutional and away from a creational view. The difference, again, is seen in that between principle and programme. An evolutional world is the working out of a principle; a created world, of a programme—the fixed design of some specified being. True, one may speak with much significance of persistent, continuous creation, of a creation active at all times and in all things, and it is to the point that the Cartesians made much of a doctrine that was very near to such a notion; but a truly continuous creation

could be only an orthodox substitute, or disguise, for evolution. A truly continuous creation could be bound by no programme; by definition it could have neither date in time nor location in space. And, what is of even greater moment, a continuous creator, ever present and ever active, could never be more or less than the persistent reality of the world itself. How could he be aloof or different? So have we come, once more, to the immanence of God as a necessary idea of the sceptic.

The doubter's world, then, is the scene, as realistic as you will and perhaps we may say, too, without unwarranted enthusiasm, as bright beneath the morning sun, of the ever present, ever active life of God or—with the same meaning—of an evolution which we may call God or nature as we please. From this thought, too, if only we remember that nothing is unreal and no experience is without some contact with reality, there is but a step to the idea that God and man are actively parties to one and the same life. To repeat from above, the conflicts of human life are the perfection, the perfect living of God. God is, nay, God's life is, not what some, but what all men do, and the doubter's world is just the world, the world of things always relative, the world of constant conflict, in which alone this can be true.

II. THE PERFECT SYMPATHY BETWEEN THE SPIRITUAL AND THE MATERIAL.

But we pass to the second feature of this world in which we are journeying, namely, to the sympathy of the spiritual and the physical.

As a matter of course the sceptic, by his peculiar attitude of mind, must imply something with reference to the relation of the two worlds, or the worlds commonly supposed to be two, the spiritual and the material, and because for him the reality cannot be exclusively one definite thing or any number, small or large, of definite things, all of them independent and exclusive, he must imply in the world of things, be these two or as many as you please, that they always work together for whatever is real. Such an implication at first hearing may or may not appear to be a pregnant one, but at least it suggests that in some genuine way there must be sympathy between the two things, the two worlds—spirit and matter, mind and body. These two must work together for whatever is real.

But by this necessary sympathy between the spiritual and the material is not meant a mere parallelism so called. Thinkers, present and past, have tried to be satisfied with such a meaning. To be quite real, however, sympathy must be substantial even to the point of unity, not formal. Some friends, and even some married people, are parallel, life matching life at each and every point, but not positively and vitally sympathetic. Still, in parallelism, the very name for which is fairly indicative of its import, there is a convenient approach to the meaning here intended. Moreover, our Cartesian philosophers were much given to a theory of parallelism in their views of the relation of the two spheres of mind and matter; their specific doctrine of continuous creation, already referred to, was parallelistic; and they found the human mind and

the human body, though distinctly two, still "parallel." Then, too, in more recent times, parallelism has been in evidence, figuring conspicuously at least as a working standpoint in the psychological laboratory, and figuring also, I venture to add, as an important assumption in philanthropic work. Accordingly, although the term itself does convey a good deal of its meaning, I shall try, in words as simple as possible, to show exactly what the theory of parallelism is. This done, we shall be able to see, or think through parallelism to sympathy of a more genuine and a more vital sort.

As was said, the doctrine of continuous creation, holding as it does that the mental and spiritual life of God and the constant changes in the natural world, the world said to be of his creation, are always in accord, God in his relation to the world being, so to speak, always up to date and having his attention on every place and part, is distinctly a parallelistic doctrine; but, quite apart from any theological reference, parallelism asserts that all states, or events, in the two spheres of body and mind, of spirit and matter, are (1) equally real and substantial, and (2) perfectly harmonious and consistent, in just the sense that always in connection with any condition or change in one realm there is an accompanying condition or change in the other, although (3) between the two there exists and can exist no causal connection whatever. Obviously to make either, whether by what is known as causation or in any other way, the producing and wholly determining condition of the other, or of anything in the other, would be at once to unsettle the equivalence or balance of their reality, *and equally real*

they must be. Thus, in more detail, mind is denied any independent part in the production or determination of anything in the material realm, and matter is in no way the source of what transpires in mind. Each is, so far as the other is concerned, quite its own master. Each is absolutely without any arbitrary influence, any influence not natural or sympathetic or co-operative, upon the other. So to speak, neither imposes on the other a "must" that is not at the same time already the other's "would." In other words, any state in one is always the occasion, but, so far as an independent causation goes, the wholly passive occasion of something quite pertinent occurring in the other. Is there an idea, a state of consciousness; then, corresponding, there is some real thing, some physical object adequate to the idea. Is there an act of will; then, corresponding to it, some movement in the material world. Were the relation different from this, were mind and matter ever independent causes, not merely coincidents or perhaps co-operative causes, of each other, then, as is worth adding, besides the disturbance of the equivalence of reality, already referred to, there would be implied a fixity of plan, or manner of action, and a definiteness of possessed power in the nature of the supposed causes, and these implications would also give offence.

Yet in the world of our journeying there must be causation—on some plan—of some sort. Parallelism, though sometimes supposed to be more sweeping, is really and consistently a denial only of isolated, independent causes. It denies, not causation, but causation as ever localized or with an exclusive residence.

In very much the same way certain political ideas, growing to explicit expression contemporaneously, have denied, not sovereignty or power, but an exclusively localized sovereignty or power, as in the case of absolute monarchy or of an absolute institution, whether church or state. Parallelism, or at least the inner meaning of it, simply imposes certain conditions on a still real causation. These conditions, too, necessarily involve a significant, even a revolutionary change in the nature and value of any cause, but beyond peradventure they are unavoidable conditions. Thus, every active thing having any part in the causation of the world must always be only one among other active things, each also with some part. Then, secondly, all active things must co-operate, in, if not actually through their differences working together and harmoniously for what is real. In short, they must be "parallel." And, lastly, as something not formally asserted by parallelism but still far from incongruous with it and, as seems to me, even demanded by its inner meaning, all active things must be always acted upon as well as acting.

To give a single illustration, though this may be quite superfluous, parallelism would view the life of a skilled labourer at work in his shop as a process in two parts. On the one hand, the environment, comprising not merely all the tools and materials, but also the body of the workman, moves as a mechanism, each part flying to its appointed task consistently with the particular thing to be done; and then, on the other hand, the mind and the will of the mechanic, not by any independent *ab extra* causation, but never-

theless at every thought or sensation coincidently and pertinently accompanies the environment's mechanical movement. Each process is consistent within itself, not following nor yet preceding, but accompanying the other in perfect step. What makes the environment so tractable or the mind so practical? The credit here has usually been given to a *tertium quid*, to God, who is so made more a mediator than a creator. God is the Great Paralleler. But the third condition that was to be met—how about that? Are the workman's mind and his environment each at once acting and acted upon? Are their two processes virtually one instead of two? and is the mediation accordingly, just in the fact of such unity instead of in some being acting as if from without? So far as the formal theory goes, as was said, this third condition is not fulfilled, but the theory cannot be understood as opposed to such unity; rather it is a first step and a long step towards an appreciation of it. The formal theory, alike in its assertion of the parallelism and in its view of God as mediator rather than positive creator, is an effective attack, consistent, as we have seen, with the demands of an honest, thorough-going scepticism, upon the fixed, independent, arbitrarily creative cause in any form. It does not openly assert causation in any other sense. Seeming quite oblivious, for example, of causation as action with an accompanying reaction, or of what I should style an organic or differential causation. But, besides making and needing to make no denial of this, it all but opens the door to recognition of such a view.

In such manner, then, as simply and as briefly as

I find myself able to put the case, runs the theory of parallelism; with its equal reality and its non-interference of two distinct but thoroughly correspondent agencies or substances, certainly a theory of a formal, rather than genuine and vital, sympathy. Metaphysically it is dualism still persistent. But one needs only a little insight, and perhaps also a slight leaning towards the gruesome, to see that it is dualism—at least the dualism of the medieval type—already in a shroud. Even dualism demands, and should always be allowed, its funeral service and a decent burial. With the passing of dualism, however, the sympathy becomes more than merely formal. Two things always equally real cannot be really two, and a perfect parallelism, though satisfying to certain cherished traditions in philosophy or theology, is so saturated with unity as to be almost, if not quite, at the point of precipitation. Without attempting, therefore, any further appraisal of parallelism metaphysically, we may turn to what will seem more practical.

Looking or thinking through this metaphysical theory we can see that it is equivalent to a declaration that the physical and the spiritual in human life, or in life at large, are meant for each other. Perhaps in a somewhat stilted fashion, but nevertheless beyond any chance of question, it is a philosophy that makes man and nature always accordant and adaptable, and coming as it did in the history of thought near the beginning of the modern period, it can lay claim to this meaning on historical as well as on logical grounds. Its value to philanthropy, too, perhaps only another sign of its modernism, is easily

detected, since it supplies just such tangible means as the material conditions of life for the accomplishment of philanthropic ends, and its service to scientific psychology, plainly an indispensable service, lies in its making the physical nature a medium, not merely for the expression, but also for the study of what is psychical. As for its relation to the argument of this book, it is simply dualism meeting, or trying to meet, the demand, in the first place, that reality itself should be indeterminate—*always a tertium quid*—and, in the second place, that the things that are definite, be they material or spiritual, should work together for reality. Under the same demand, be it said, atomism could stand only if supplemented by some doctrine of assumed unity or co-operation among all the elements—as, for example, by Leibnitz's doctrine of pre-established harmony.

But, furthermore, looking and thinking through the theory of parallelism, we can see something of special significance for the doubter's world. Men often forget that new relations of things mean new things, or at least new characters for the old things. Thus, mind and matter, or man and nature, if become, or found to be, parallel, are no longer the mind and the matter, the spiritual man and the physical world, that they were. The two things, just by their complete correspondence, are changed in a most important way. That they must be changed is quite evident, but how to state exactly what the change is is not easy. That the change, too, must be in the direction of their more vital union is evident to us, but again the precise description of it is difficult. Still, I submit that the

effect of correspondence, whether this be natural or imposed, is to make the things concerned, in the present instance the spiritual and the material, at once dynamic and teleologic in character and function. Moreover, they are dynamic with the same reality and teleologic for the same end. To correspond to something, as parallelism makes matter and mind correspond to each other, is not, and cannot be, simply to have a certain character, self-contained and generally static; it is, and apparently it must be, to have a constant call to action, a constant motive to go beyond self, and so to make one's nature mediative or instrumental. Wherefore, if this be in truth the effect of correspondence, in our doubter's world mind appears as a thinking, not a mere knowing, and matter as a moving, not a mere being; and the thinking and the motion are instrumental, or mediative, to the same end, to the same reality. All of which, moreover, being translated, means, on the one hand, that in our doubter's world man is free to think to some practical purpose, and, on the other hand, that the material world will serve both his thinking and his purpose.

As to the first of these, the freedom of thought, mind by being relieved from all danger of any *arbitrary* interference from the physical world, has at once the conscious right of independent procedure and the positive assurance of its thinking, thus free and independent, being quite practical or applicable; for plainly the freedom is in, not from, the material world. Nothing possible to thought, no consistent chain of reflections upon experience, however abstract, can possibly fail to be exemplified in the

natural world, or—as Hegel said, giving more direct expression to the same idea—the real is rational and the rational is real. The applicability of thought to life, therefore, the real utility of looking well before leaping, the ultimate service even of the most technically scientific theory is what we see from our present observation-tower, and the splendour of the view hardly calls for remark. Man is free to think, to think in his world and about it; and his thought is always incarnate; it is an unfailing mediator between him and the life of the material world about him. "Well begun is half done" is an old saw, and for human conduct a great truth, but "Well thought is well done" is even greater, if not older. Think clearly, and the fulfilling act, the overt expression of your thought, is already ensured. A thoroughly developed plan finds its execution, as it were, already provided for; such is the perfect sympathy between the mental and the physical world.[1]

Now, however, that we have observed the complete freedom of the thinker in the doubter's world, now that we see the thinker free, not only to develop his thought abstractly, but also to expect that the conclusions which he reaches will be exemplified in his

[1] The last few sentences seem like a paragraph from some psychologist of the day. My colleague, Professor W. B. Pillsbury, for example, has just published a book on the attention, in which appears the following statement: "It seems that the problem of voluntary activity is largely, if not entirely, a problem of the attention. . . . The processes which are effective in the control of a man's ideas are *ipso facto* in the control of his movements," and this, besides being the current psychology, is quite in accord with our doubter's vision: "Well thought is well done." (See *Attention*, chapter IX. London, 1907.)

world and so to be able to apply them there, we are in great danger of serious misunderstanding. Thought is indeed free, but the truly free thinker is no single individual developing some particular point of view, although even such a one must always have some part in the freedom of thought. Free thought is deeper than any of its formal expressions and broader than the positive experience of any of its exponents; it belongs to the life of mind as present throughout the whole sphere of all conscious life; and the single individual has part in it only when his actual, articulate thinking is supplemented by his conscious doubting of his own peculiar standpoint, his treatment of this as only tentative and mediative, and his consequent appeal to thought as always deeper and broader than just what he sees, or—amounting really to the same thing—only when his thought is mingled in social conflict and mutual accommodation with that of others. In the doubter's world the thought that is at once free and fully applicable is social—just as we know doubt to be social; that perfect applicability, so essential to truly free thought, simply cannot belong to all thinking, or to all thoughts, distributively and indiscriminately, to all specific thoughts and ideas, *though all must be capable of some application more or less enduring*, but only in the first place to the thinking that, like pure mathematics, is exact and general simply because strictly formal and abstract,[1] and in the second place to the thinking that when material and concrete, when dealing with actual affairs and definite practical relations, makes up for its conse-

[1] Chap. VIII., pp. 177 *seq.*

quent relativity and subjectivity by inner paradox or contradiction, in so far as individual or personal, and by open opposition and controversy, in so far as it is social, and assumes accordingly only the value of a means to an end.

Much has been said in earlier chapters[1] of the paradoxical nature of human experience. There was seen to be among men no knowledge without a contradiction, and the ever-present paradoxes of experience were recognized as causes of thorough-going doubt. But, although at first sight seeming to blast man's ordinary experience, and his science also, these paradoxes were eventually found also to give to experience movement and poise, reality and practicality, and to involve the individual in a life that was as social as it was real, and thereupon they became as certainly reasons for faith as causes of doubt; they were witnesses to a principle of integrity and validity, a spirit of veracity moving through all experience. Accordingly, once more, our truly free thinker, the thinker whose thought is thoroughly applicable to life, is such a one as lives for and with this principle of validity or spirit of veracity, having his every thought informed with it. He is not the single individual, holding tenaciously to some specific standpoint, but the doubter ever using what he sees and knows, and in using appealing beyond what he sees and knows, or he is even the social life that only more directly and explicitly embraces and uses the views of all individuals, these views always working together for what is true and real; or, lastly, he is the truth-spirit itself which is ever superior to

[1] Chaps. III., IV., V., and VI.

anything that is either merely individual or merely social. The free thinker is just the honest doubter; a believer in what he knows or thinks, but only as a working view to something else; and, consciously, a social being, through controversy sharing with others the practical experience of what is real.

With regard to the peculiar case of mathematics, which is widely applicable because formal and as exact as formal, it seems enough to say that while mathematics has very properly become the ideal of all knowledge, not excluding such sciences as psychology and sociology, the final value, the peculiar applicability of mathematics, lies in its character as a general attitude or method. It is not strictly a science, but the ideal method of science. Doctrinally, that is, as to any specific intellectual content, there can hardly be said to be any pure mathematics, any final body of formulæ absolutely exact and fully applicable. Has not doctrinal mathematics had a history? Has it now no promise of future changes? But whatever has a history—can this be quite "pure"? Have even those axioms, which once upon a time you and I learned to respect for their self-evidence, been free from the criticism and revision of the mathematical experts? Then, too, taking any particular formula from so-called applied mathematics, such as that simple but altogether typical one of the lever, what do we find? An equation is said to exist between the product of the weight by its distance from the fulcrum, and that of the power by its distance from the same point, but in application this formula can never be fully exemplified. The fulcrum never is a point. The perfectly homogeneous lever, so

necessary to the equation, is unattainable, if not also unthinkable. There can never be complete absence of friction, nor perfectly ideal suspension of the weight or application of the power. And the necessary atmospheric disturbances, even in a "vacuum," to say nothing of the difficulties of absolute measurements, are not less fatal. Only as method, therefore, which really means as procedure according to standards of strictest accuracy and of highest logical consistency, or as closest, most constant loyalty to a spirit of truth, not as doctrine, can mathematics be said to be freely applicable. Mathematics seems to me to be at the very heart of the working hypothesis. Its tests of accuracy are such as forever save science from anything like doctrinal dogmatism. Historically there is much significance in the fact that our doubter, Descartes, was almost the inventor of the Analytic Geometry, and that this and the Calculus, which came afterwards, and which we owe chiefly to Leibnitz and Newton, comprise rather a methodological than a doctrinal mathematics. With their invention and development the application of mathematics to material facts, or it would be better to say to the investigation of material facts, took tremendous strides. So Descartes, who doubted mathematics only because it was not satisfying doctrinally, regained in this case, as in that of his God or his material world, not exactly what he had lost. Alike in mathematics and theology he lost doctrine and creed; he won method and life. And, to return, with reference to the relation of mathematics to the free thinker, nothing can be clearer than that this science, at least sometimes so called, as

a method or attitude exacting clearest possible procedure and highest logical consistency, is the very principle of veracity, upon loyalty to which the freedom of thought must always depend. Like this principle, too, mathematics—so much more truly than any other discipline—is superior to anything that is either merely individual or abstractly social.

So, looking and thinking through the theory of parallelism, we see how thought is set free. Man is free, as was said, to think always to some practical purpose. Secondly, then, with regard to the material world, said to serve his thinking and his purpose, this in its turn is liberated also; it is liberated for a life of its own law and order. Nature, the material world in general, is no longer the victim of arbitrary changes. Such changes as spring from the occultly creative acts of the spiritual world, or more exactly the spirit-world, represented by God in the character of an extraneous being, by a personal devil or by those minor spirits or powers of light or darkness, often if not usually described as objects of superstition, no longer interfere with nature's orderly course. She is left, unmolested, to be just her natural self, consistent and persistent in the way prescribed by her own inner being. And then, while subject to no arbitrary interference, she is herself never given to interference, but is, on the contrary, in her own right, essentially at one with that other world, the world of the thinker. Poets have ever fondly sung of nature's sympathy with man, and her sympathy deep and abiding is exactly what we now observe, nor can any poem too loftily give expression to it.

And what, in more detail, of this sympathetic nature —of this ideal world, or perfect home, of thinking man? With much interest we certainly might trace all the aspects of its character corresponding to the different phases of the thinker's life, but discussion of them all would take too much of our space and might seriously tax an already tried patience. So we shall confine ourselves to one thing alone. The truly free thinker was said to be one who believes in what he knows or thinks, but only as a working view to something else. No thought of his could ever compass the fulness of truth within him. What, then, of nature?

Corresponding to the thinker's positive knowledge, to the specific law or order, which at one time or another he finds manifest in his world, there is the well-known, but often misunderstood, character of nature as a great mechanism, moving of course under the law. But corresponding to his only tentative acceptance, though always trustful use of what he knows, there is the much neglected character of nature as not an idle, unproductive mechanism, always doing exactly the same thing, but, if I may so speak, a moving, developing, ever-productive one, serving some end larger and deeper than the known law. Nature must indeed be a machine if the thinker's knowledge demands uniformity or law, but an instrument of something other than her mechanical self, in short, not a merely revolving, but an evolving, always productive machine, if the knowledge itself is never final.

The material, mechanical character of nature, as I have said, is often misunderstood. The real meaning of it is lost, and with serious results. In the first

place, it is taken as if it involved a wholly external, physical nature, and in the second place it is taken as if it represented this nature only as moving through its changes *according to a certain law* and as having in consequence nothing to do but keep up the dead, strictly "mechanical" existence of its law-fixed character and incidentally involve man in the tireless turning of its fatal wheels. But nothing could be more superficial, or even more needlessly superstitious, than this. Obvious facts are overlooked or, if seen, forgotten. The simplest demands of a truly scientific mind are slighted so inexcusably. Could any law of an alien, external nature ever be an actual or possible object of knowledge? And could such law as is known —of a nature not alien—ever have any but a relative value, a provisional mediate character? Nature may be a machine, but the law of her moving is never identical with any law in positive knowledge, though what is known is always informed with the law of her moving; and this is to make her more than a mere machine. Again, no known law is ever *the* law, and under *the* law nature must be qualitatively different from what under the known law she appears to be. To neglect this difference, then, is seriously to misunderstand the mechanical character of nature.

Yet some one promptly objects that I am not at all fair to the common understanding of mechanicalism. I am told that no one ever thinks of nature as revolving strictly in accord with any known law. All men who give any thought to the matter concede that the really ultimate law must be not anything that is known, but only what is yet to be known, and is

merely like in kind to such laws as men have cognizance of. This interesting concession, however, quite fails of its purpose, since it does not meet the real difficulty here in question. It shows mechanicalism, not indeed bound to any particular knowledge, but nevertheless still conceiving the final lawfulness of nature *after the analogy* of a particular law, the merely known or unknown or unknowable character of which matters not at all. The analogy is what misleads. The analogy only serves to deaden what really lives.

When will men cease to think of the whole after the analogy of the part? Of *the*, as if it were *a*? When will God cease to be only another person? And the universe only another thing? And the lawfulness or unity of all nature only another formula? This or that formula may show nature a mechanism as smooth running and as blindly given to dead routine as could be imagined, but nature is ever more and other than known formulæ of men, and as more and other, or say as answering to the free spirit of truth that moves in the thought of men, she is as free in her real lawfulness as she is infinite. By reason of her infinity there is no law that she may not break. *A* law may make her a mechanism, dead and idle; *the* law makes her an organism living and productive. How a positivistic science, making all knowledge wait on actual experience, and accepting all knowledge only tentatively, can ever be mechanicalistic or appeal to the ordinary understanding as an argument for the mechanicalistic view of things is hard to conceive. If one reasons from known forms to uniform activities, must one not also reason from the always provisional

and developing knowledge to productive activities? Must not the mechanism evolve into something more, adding something to man's life, realizing something for all life, enlarging even the nature of God himself?

Once more, therefore, corresponding to the law that men may know and that they can know only as their working hypothesis, there is nature, a mechanism moving and herself at work, while corresponding to the great living fact of nature's final lawfulness, or to the thinker's sense of truth as a spirit or principle, not a form or creed or programme, there is the constantly, genuinely productive life of nature, the mechanism, as has now been said several times, ever evolving beyond its form and law. Her law is not a law, any more than the thinker's passion for truth can be finally satisfied by a formula or than God's continuously creative life can ever culminate in a single finishing act. The doubter's world, in short, or so much of it as is said to be material, is not law-bound, but law-free:[1] an organism, not a mechanism; and upon the value of this vision of nature, upon the theoretical or the practical value, whether to science or to philosophy, to morals or to religion, to politics or to industry, it seems hardly necessary to dwell. But, to add a word or two in very general appraisal of it, such a nature, served as it is by every law, by every mechanical action, yet bound to move, is active always from design; its life is essentially purposive. Not that it serves the purpose of anything, or any being, beyond itself, but in every part and movement it is itself always maintaining an end, the end of its

[1] See also an earlier discussion in this book, chap. III., pp. 49 *seq.*

its own untethered reality. In words used before, and applied alike to the spiritual and the material, it is at once dynamic and teleologic.

Such a nature, be it especially observed, is the basic condition, if not also the very inspiration of our modern industrialism. This industrial age, struggling against the old-time militarism, in its religion, in its art and in its literature, in its leisure and in its labour, in city and in country, is an age of machinery; of machinery in all the manifold forms demanded by all the various departments of human life, not of wheels and belts alone; an age of the conscious employment, for human purposes, of the resources of all sorts, the materials and the forces which the natural environment affords. Freedom, not slavery, is recognized as man's ideal portion, and in order to ensure the freedom, not human nature, but physical nature is mechanicalized; or, with the same intent, all the formal means, or instruments, of life are taken as incidents of environment, not as essential to man. So is industrialism supplanting the old-time militarism that sought, in all the relations of life, to identify the human with the instrumental. Witness the values now put upon theories and creeds, upon rites and institutions, upon personal habits and social laws. All of these, to begin with, are means, not ends; and, further, they are means whose devising —so man is insisting, as never before—must be, as near as possible, true to nature. The sovereign conviction of this age of industrialism appears to be that the only sure way to human freedom is the way of nature; employment of such instruments as she can supply; obedience to such law as she may disclose.

But many have found this age of industrialism insufficient. It seems to them so materialistic. It would view things so much from the standpoint of cold naturalism. The attitude of *laissez faire* as meaning "Let nature do the work," has so widely possessed the minds of men. If only we could get back some of our former idealism and regard nature as once more subject to some supernatural will! Despair like this, however, is blind and as needless as blind. Dependence on a lawful, mechanical nature can bring to human life no loss of what is truly ideal and personally worthy. Instead, it brings constant gain, for the knowledge of law and the making of machinery do not rob men of personal opportunity, but rather make the opportunity for personal achievement only the more manifest. A mechanical nature is always for man, not man for a mechanical nature; and its movement is always productive for man. If, then, industrial life has tended, as it has been supposed to tend, towards materialism and fatalism, the reason can lie only in the blindness of such as refuse to see clearly this visible fact. Not merely something always doing, but something always that man is doing is the definite message of a nature that ever manifests herself under the form of law. To the thinker, in no uncertain syllables, she says: Go forth and do. And our age of industrialism, if hearing this bidding, will lose its unnatural materialism, and find itself quick with a moral and religious instead of a narrowly practical and commercial motive.

So in the doubter's world are the spiritual and the material genuinely sympathetic.

III. A GENUINE INDIVIDUALITY.

Besides the reality, without finality, of all things in experience, to which we gave our first attention in this chapter, and the perfect sympathy of the spiritual and the material, which we have just seen to give new dignity to the intellectual life, making thought free, and new worth to the life and movement of nature, making nature not lifelessly mechanical, but mechanically productive; besides these two features of the doubter's world, there still remain two others to be observed by us. For the first of these there is the fact of a genuine individuality. Different persons, as well as different things, possess a substantial worth to the real and the true. No one may be either real or worthy by himself, but no one is unreal for being dependent on others. The persons, like the things, that work together for what is real, find the service its own reward. Reality, having no exclusive resting-place, must itself be dependent. It is dependent on an infinite multiplicity of differences. Therein lies the person's chance for individuality; nay, it is his right to it and assurance of it.

Before the days of Descartes, to speak generally, the typical individual in human society—and let me say also, though at the expense of running into a rather violent metaphor, the typical individual in any class or group whatsoever—was the soldier, a creature of another's will, doing only another's work, and having reality only by virtue of characters so apart from individual peculiarities as actually to imply existence in another world. The individual, in other words—if

at once real and worthy—was then an unearthly being. For a being so constituted, or living as if he were so constituted, the creationalistic theology and the analogous monarchical politics were of course largely responsible, since in their different ways they took individual independence of action from the general run of mankind. They imposed on men at large a certain uniform of life and belief, and then, as it were, appeased them for this suppression with a doctrine of another life in a world yet to come. Plainly, then, the time was not one when personal individuality, except as it was referred to the other world yonder and apart, was recognized as of much positive worth. Under the regime of prescribed routine, of life with regard to the hereafter, and of mysterious powers of all sorts, more or less in good standing in the realm of the unworldly, personal individuality, though in itself not without some honour, was valued chiefly and primarily for the different conditions, the different relations to the things of this world, and the different views of these things, which men succeeded in overcoming, or rather in completely denying and eschewing. A worthy individuality was thus secured rather through self-denial than self-expression; through the vassal's devotion to his lord, the gallant's submission to his lady, the courtier's humility before his king, or the saint's self-abasement before church and heaven. Just think a moment of resting your claim to distinct personal worth on the mere fact of what you have eschewed or escaped being in some way different, perhaps more worldly, more dangerous, and more powerful, from what some others have eschewed or

escaped, and you will be able to appreciate the main ground of the ideally significant distinction between man and man in the days before Descartes.

But with the advent of the doubter's view of life absolutism and its appropriate other-worldism melted away like snow beneath a noonday sun, and upon their going self-denial ceased to be the cardinal virtue and the chief ground of an approving self-consciousness. Authority came to be placed not in a visible form, but in an abstract principle. Law became superior to laws; monarchy to monarchs; divinity to Gods; truth to truths, and righteousness to rites and habits. The abstract principle, too, instead of being, as many might imagine, a wholly shadowy thing, real only to the logician, stood for something vital and substantial, for something wholly real, for an inner spirit or life or power in the very things of experience. Authority, henceforth refused to any specific thing, whether person or manner of life, institution or formal belief, became a prerogative of all things together, of all persons or all manners of life or all creeds; and, residing in the working together of them all, it made personal worth consist no longer in the denial of individual characters and relations, but in honest assertion and open use of them. As some have liked to describe the change, the "universal individual," the individual as an authoritative and heaven-made type, that dictated a life and a belief to others generally, passed away, and in its stead, instead of unity as itself an individual, instead of an incarnate type, came unity as in the relation, or the activity maintaining the relation, of all individuals. Instead of a single planet, for

example, as the controlling centre of the heavenly bodies, came the unity of the solar system through the force or the law of gravity. Instead of a monarch or a book or a city the self-sufficient ruler of human life and human thought, came unity through the ballot; through freedom of thought—always loyal only to a real unity and in being thus loyal also always tolerant; and through all sorts of like means to individuality. The "universal individual" died, and there arose, as it were, out of his grave the living unity of manifold individuals, each one different, yet each quite essential.

And the change brought a transfiguration. It was as if the human soul had entered a new body, or as if the human body had received a new soul. Not least among the significant evidences of the new life were the rise of the study of history and the awakening of a keener and more practical interest in men and things the wide world over. With its valuable accounts of the manifold experiences of different peoples and different times, at last seen to be real parts even of the life present and at hand, the study of history became wonderfully absorbing and inspiring; and not less valuable than this travel in time was the travel in space, the real travel or the imaginary, which accompanied it. Furthermore, such ideas as balance of power and preservation of the worth and integrity of the individual nation, and division of labour and right of free speech and of political and religious liberty, developed into most powerful influences in the life and consciousness of society. And, to return definitely to the single person, he found himself, not in spite of, but because of his

special place and special standpoint, an active participant in the effective life of his time. Instead of being a mere soldier as before, he found himself a mechanic; certainly the proper inhabitant of a mechanically productive nature.

Doubtless the term soldier lends itself more readily to philosophical generalization than the term mechanic. Perhaps, too, distance in time lends enchantment to the view, for the day of the soldier was, while the day of the mechanic is. The day of the soldier has reached the stage of romance and reflection, while the day of the mechanic suffers from what is commonplace and prosaic, from the associations of a particular life, from dust and smoke and factories, from tools and utilities. Yet the mechanic must be the romantic figure of the future. He is the typical individual of these modern times, of these times of the free because practical thinker, and of a nature not lifelessly mechanical but mechanically productive. Forget the grimy hands and the noisy machinery, the overshadowing smoke and the apparent absorption in mere utility, and think only of the man, who in his best moments feels himself individually responsible and capable, who believes in himself as having at once a peculiar and a necessary part in the real life of his time, and who expresses himself through some skilful mastery over the resources of nature, applying to them the principles his own thinking has uncovered, and using her machinery to the ends of his own nature, which, as we have seen, is bounded only by the "unity of experience."

Remember, too, the mechanic of our modern world is

not the factory labourer alone. Wherever in social life, whether in political activity or in industrial management, in educational methods or in religious effort, there appears a man who appreciates the need first of observing natural conditions and finding natural laws, and then of acting only in accord with the suggestions of the laws discovered, just there is the mechanic, the responsible agent of a law-free but always lawful nature. The soldier as creature of this world was only a passive, wholly material part of a mechanism which depended for its movement upon some outside power or will; but the mechanic, be he humble labourer skilful in the use of tools, or political leader supporting no law that is not, so far as can be known, in accord with natural life, or religious reformer loyal to life as it is, shares positively in the activity that makes the machinery go and in whatever this activity produces.

And yet one thing more must be said. Just as before we had to view free thought in the light of a divided labour, the individual sharing in it only as he treated his own peculiar experience as hypothetical, as a means to an end, not merely an end in itself, or as he was subject to the restraint and correction of the different experiences of others, so now we must recognize that effective activity, not less than true thinking or than realistic experience, is also necessarily the labour, never of one alone, but of many. The successful mechanic—in other words, the fully responsible agent of a law-free nature—is never an isolated creature with merely such a sentimental concern for his neighbours as might spring from the recognized chance

of meeting them in that world of the hereafter, where all are to be equal and where love and peace are to supplant the present hate and rivalry; he is, on the contrary, one among others, different from him, it is true, and often very positively at variance with him, but engaged with him in a single activity and achievement. His difference works not against, but with their differences for thoroughly controlled, truly effective activity. As things are real, though never final, so men, at work in the world, are individual and individually important, but never alone.

The facts in the case, logically and practically, appear to be somewhat as follows: The individual's view-point, and the special machinery by which he undertakes to realize it, can be only tentative or provisional; they have the character, and usually he knows that they have the character, if I may use a somewhat extravagant term, of makeshifts; and, such being the fact, he is bound always to be in a state of constraint or tension, in a relation of suspense towards them and towards the environment to which they refer or belong. He feels a positive resistance, a something disposed to counteract what he would do, and of course the feeling means that he is really party to a growing life, not established in a completed life. Suppose a view-point, or a machinery that was perfectly applicable, that worked perfectly, that never did and never could give out, that might not even very suddenly go all to pieces, and that therefore put no strain nor uncertainty upon him who held or employed it; could such a view-point or such machinery be of any service to a growing life, to productive

activity? Most certainly not. Tension, or a strained relationship, is necessary to every individual's conduct and to every individual's ideas. But this strain, to be real, just to accomplish its own purposes must be not merely of a person with his own ideas or with the outer world to which the ideas refer, but of a person with other persons; not merely of conscious man with a mechanical nature, but of conscious and mechanically active man with other conscious and mechanically active men.

It is now an old story for us, but an important one, that there must be society. A genuine individuality requires society. Society is a medium not by which something is added to individual life, but by which something in individual life is kept real and manifest. By maintaining, as it were always from without, the natural tension of individual life, it ensures to the individual the constant growth that is his legitimate inheritance. The doubter is a social creature. The free thinker accepting his ideas only tentatively, though at the same time using them hopefully, sure that they will lead somewhere, is a social creature; and the mechanic is a social creature, being one with others for whom life is not routine but growth, and among whom the growth in which each has his part induces constant tension, the tension of difference, the tension of opposition and competition, the tension of mutual correction and compensation, the tension, finally, of reality refusing to be bound. Not the individual's provisional standpoint, nor yet the machinery that he employs and that sooner or later must go to pieces, not these alone, I must therefore reiterate, make the individual effec-

tively active in a growing world, make him a worthy creature doing the work of nature or of God; these have their place and part; but constant relation to other individuals, the objects not less of hate than of love, not less of rivalry than of friendship, is also essential.

In the so-called material world all things, in and by themselves unreal, get reality, yes, get individual reality, only as through their very differences they work together for what is real. In the world of mind, or thought, if this can be imagined apart from the world of things, all thoughts or ideas, in and by themselves untrue for being subjective, relative, and partial, get truth only as also through their differences, so tense and interactive, they work together for what is true. And, likewise, in the world of persons, if indeed this can be imagined apart from the world of thought, all individuals, call them now mechanics or what you will, though in and by themselves without personal worth or real individuality, without freedom or immortality, get genuine worth and are assured even immortality only as shoulder against shoulder they work together for a life that is true and real, worthy and genuine.

But in an earlier chapter, dealing with "The Personal and the Social, the Vital and the Formal in Experience," a different argument for individuality was insisted upon. Then the person was individual because of his independence of particular form; now he is so because a real life demands the particular and different, with which he is assumed to be necessarily identified. Then he was the "living, integral exponent of the unity of experience," free with the

genius of universality, now he is one among all the particular conflicting elements of that unity—or at least of the reality to which that unity refers. So there appears to be even an inconsistency in my thinking. Yet, I venture still to think, the inconsistency is only apparent. Certainly it should be remembered that the person's asserted genius for universality was not for the universal in an abstract sense, in the sense of the universal as something by itself and apart from particulars; rather it was for a constant enriching of the universal through particulars, for the translation of any one particular relation and experience, which had reached a higher state of development, to all the other actual or possible relations of life; and this can mean only that the universal, in which the personal individual has a place, is not denying or betraying, but always holding and lifting up to itself all particular factors or elements in the unity of experience or of reality. Simply, though perhaps abstrusely too, the universal is just all the particulars; unity is always in and through difference; and there is, therefore, without inconsistency, a case for individuality from either side. Indeed, the life of the individual being, as was said, always in a tension or strain of difference, of opposition and competition, is bound to have, it can be real only as it has, both a particular form and a genius for universality. Not in the sense of that conventional theology, crudely dualistic and unthinkable, but in a sense that is not to be gainsaid and that may give some meaning even to the conventional theology, every individual is real only in having a body and a

soul. The soul of a man is only his genius for universality, but for a universality that works through, not that is independent of, the particular.

So the difference between this chapter and the former chapter is merely one of emphasis. The double character of the individual, however, as it is now before us, starts an inevitable question. Is the individual as immortal as real? If he is immortal, does the immortality belong to both sides of his character, to his body and to his soul, or only to one? And, admittedly, this question offers more serious difficulties than the suspicion of inconsistency. How can it be met?

IV. IMMORTALITY.

To write a useful essay on immortality has long been one of my ambitions, and, as regards the views in that essay, my faith and my reason alike have so far brought me to this thesis: *Whatever is real is immortal.*[1] "A most meagre contribution to the subject," I hear some one exclaim. But is it so very meagre after all? "A most gloomy contribution," says another, "for evil, and above all death, are real." But is it so gloomy? Remember, not even death can be real alone. Possibly, too, the meagreness will seem less and the gloom will be illuminated if the need of the real being also the ideal, is brought to mind. That the real must be ideal, that the world must be so

[1] Two preliminary efforts have already been put in print. See the Appendix, "A Study of Immortality in Outline," to a book: *Dynamic Idealism: An Introduction to the Metaphysics of Psychology* (McClurg, 1898). See, secondly, an article: "Evolution an Immortality," in the *Monist*, April, 1900.

constituted that the law of whatever is good will prevail in it, has been a faith manifested among all men and expressed through history in countless ways. True, no particular experience ever satisfies it. Not even the particular things we adjudge to be best are adequate to it, and the things we think evil, the suffering and the hardships of all kinds, the always tragic death and the too often offensive life, seem its eternal rebuke. Yet the faith remains, and you and I and all others are forever calling out to it. Our very doubts are its altars; our honest, rational thoughts, as they are uttered, are prayers; perhaps the only prayers to which we have any right.

So the real, which must be also the ideal, is immortal; and this, quite apart from any particular questions about the body or the soul, makes a world to live in and to hope in, whatever happens. Of body and soul, too, it says something, These, in just so far as they are real, are immortal, and any real relation between them is immortal also, for the conclusive test of immortality is just reality, reality here and now. Whatever is real in your life or in mine, whatever reality our present personality may possess, be it physical or spiritual, be it both or neither of these, that and only that is immortal. That and only that, however, let it be said again, is now or never. The most serious error, so it seems to me, in all the controversy about immortality, is the notion, or the superstition, that something that is real now can pass away, or that something real in the future is not real, not freely real now. With this error corrected, of course at the expense of certain attempts to bind reality to

something that is visible, if not to the natural eye, at least to the eye of the mind, man has nothing to fear. Reality will hold him to itself, will support whatever truly inheres in his friendships or his family ties, in his best hopes or in his personal conceits, for ever and ever. Reality can never betray what it has ever harboured.

And the whole trend of thinking in this book has been to make the reality here spoken of a most hospitable harbour. So innate to all experience is the spirit of truth, the principle of veracity, that life can have no absolute illusions. True, life also can have no positive knowledge final and exact, so that all things definitely manifest are only relatively true or real. All things definitely manifest, whether to the consciousness that looks without or that looks within, are mixedly true or false, real or unreal. But just this impossibility, now so familiar to us, at once of absolute illusion and of absolute knowledge, is, as said so often, a condition of *the* true and *the* real, and it means in this place that nothing which is ever defined, which is ever hypostasized or apotheosized, which in any way is erected into a thing or nature quite by itself, possessing determined or determinable qualities, can ever be said to be either mortal or immortal, since it must be as truly one as the other. It must be significantly, but never purely and exclusively either. Not this hand of mine nor that picture on the wall, not this body which, so to speak, I seem to wear, nor that soul, which you or I imagine to be in the body and more or less loosely connected with the body, is unqualifiedly immortal. Nor yet

is any of these unqualifiedly mortal. Still, again, there is immortality, and an infinitely hospitable immortality, which the hand and the whole body and the soul, be it yours or be it mine, all have a place and a part in. There is immortality, and, besides those things that were just named, divinity is also immortal. But even a God dies, this being just one of the things that make him God. Any man, then, or any being, or any thing, may say, "I am immortal." No one, however—to speak now only in words directly applicable to man—may say, "My body is immortal," nor even, "My soul is immortal," if, so speaking, he means only what he seems to say. Body and soul alike, if two separate things, are *both* of them at once living and dying. They are equally mortal or immortal, for only so, as two things, can they belong to the real self. Can parts, be they two or many more, ever be unmixedly what the whole is? There is immortality, then, yet nothing, not the body nor the soul, is wholly or selfishly immortal. Reflect, to take an illustration from the practice, if not from the conscious thinking of men, how through the centuries of the dualistic view of human nature, the saving, or the losing, of the separate soul has been a keen human interest, and how the separate body, living, has been neglected and despised, and, dead, has been cherished and honoured. Yes, man's immortality is deeper, and it is more hospitable, than any distinction, be this invidious on one side or on the other or be it not, between the physical and the spiritual. Even in the case of the spiritual, *the* cannot be *a*.

The soldier and the mechanic have been mentioned

as types of personal individuality appropriate respectively to the medieval and the modern period, to the period of the "universal individual," on the one hand, and of unity realized, not through a type, but through the working together of different individuals, on the other. The type was of another world; the living unity is here and now in this. For the mechanic, then, death is not what the soldier has found it, and immortality is different too. But how fully to describe the difference, and how above all really to appraise it, I do not clearly know. Perhaps there is not enough of the poetic in my nature. The soldier, as the political historian or as the philosopher sees him, has had his appreciative poets, but the mechanic has been little sung. The mechanic's death, however, and the life following it, afford a theme that some poet of the future, let me hope, will be able to do justice to. The soldier leaves this for another world, by his violent death only fulfilling his extreme subjection here. The mechanic, somewhat like the tools which he employs, actually continues with the always productive life of this world, by his death, natural rather than violent, even contributing to, as well as sharing in, what is produced. Not less than the soldier's is his after-life an appropriate fulfilment of his earthly career; each gains through death the natural reward of his life's service. But though I find myself so unable to say what I would, to express either in prose or in poetry all that I seem to feel, there is just one thought that I must try to articulate, and that will certainly assist the understanding of the difference between the two deaths or the two after-lives.

Soldiers are companionable, of course, but they live less in and with each other than in and with the will which they serve or than in and with the separate world which at any moment may suddenly take them to itself. Their lives, accordingly, or their deaths, are aloof from each other, and are brought together only through their common subjection or their common destiny, through something which is without. But the mechanic is social in his own nature, in his own right. The very reality, too, of the world in which he works is, as in so many ways we have seen, maintained only by a divided labour. It is, then, a reality, or a labour, that bridges the chasm between one man's life and another's, as well as between all separate lives and the unity of all life. It makes the many lives "parallel" and harmonious—nay, it makes them actively and vitally sympathetic. Not, as is certainly true, at the expense of any one's real individuality, for each man has his place and his part, real and immortal, and not one falls unnoticed or unguarded to the ground; but, nevertheless, whatever all have and do, they have and do together. They live-and-die together. There is, in a word, but one death, as well as but one life, the life or the death, which all share, and which accordingly is definitely and specifically nowhere and nobody's. And in the light of this supreme unity, while any live, none can be merely dead, or while any die, none can be merely alive or living to themselves or their time alone. And, living and dying together, in and with each other, all are parties to the immortality of what is real.

So, again, there is immortality for mankind—the

immortality of him whom I have called the mechanic. There is immortality, mine and yours and ours. We die, but not as dies the soldier, who leaves this life for another quite apart, securing there a companionship denied him here; we die a death that is never death alone, and we die as we live, in a companionship that is real now and throughout all time. Furthermore, our death is always, or always may be, self-denial, and self-denial, too, in its supreme moment, the moment of its greatest achievement, but our self-denial is also very different from that of the soldier.

There is immortality, then, but what results has all that has now been said for the interpretation of history, for our feelings about the life and death of our fellows, and for the relevant doctrines of Christianity?[1]

We commonly think of history as the passing of persons, nations, and civilizations. Men come and go, but history goes on for ever. To be sure, history accumulates, as if its gifts from humanity, innumerable treasures, books, relics, institutions, buildings, machinery and the like, but the donors, as we are wont to think, are lost to it, remaining as ideal influences perhaps, but not as vitally active in the life they once assisted. This common view, however, must now seem wrong. The past must ever persist in the present, and not as an aside in some other world, nor yet as merely so much ideal influence, but vitally as a party to the present. Those that were must also live now. Have we their literature? Yes, and their conscious-

[1] Except for a few changes, the next few paragraphs are taken from my article, "Evolution and Immortality," in the *Monist*, April, 1900.

ness too. Their institutions? And also their life. Their achievements? And their power and will. Altogether too fanciful, some one thinks; but give it meaning from what has been said here especially about individuality. In the real world there can be but one life and one death, and we individuals, whatever our century, divide the labour of them both. Even our present life and consciousness and our will must be said to belong, in return, to those who have gone before; for it is wrong, it must be wrong, to think of the life of the past and the life of the present as two lives, as independent and perhaps even different in kind. Not those that are now gone once lived and we live, but they and we are living, they in us, and we with them; they in the world of our life, not in a world yonder and apart. They live in us, to suggest a simple analogy, that is perhaps more than a mere analogy, very much as our own past selves, our infancy and our youth, are alive with us and in us to-day. If a physical scientist can see the same force in the military weapons and engines of ancient times that he sees in those of our own time, if a sociologist can find the same social phenomena then and now, may not the historian regard the older life in general and the newer life as not less intimate? Did different winds blow in 1492 from those that blow to-day? Was it a different sun that shone in 500 B.C. from that which shone in A.D. 500, or which shines, or tries to shine, to-day? We do not deny that the animal nature is still alive in us as well as around us, although at the same time we suppose it to belong to a very early period in our development. Why, then, should we exclude what is

so much more recent? Because it is too distinctly human to be so robbed of its temporal independence, of its own date and place? That is certainly a strange reason in view of the fact that men have insisted on erecting, in their minds, for the human nature that has passed away, a place which is altogether timeless and eternal. Why not dignify human nature, then, by making it, and all that it bears, eternal in its own natural life, not in a sphere that is unnatural? It is sheer materialism, in letter or in spirit, either to entomb the historic past, as some would, in books and monuments of all sorts, or, as others would, to lay it aside in a so-called immaterial world. Who does either of these things forgets how the books are written and how the monuments are erected, and how in general the things of the past come to be. The future is always a party to whatever is done. The men who have ever achieved anything have always been, in their character and in their work, as if made by the future, "ahead of their times." An uncanny phrase, unless one can think of the deeds and men of any time as in a vital unity with the deeds and men of all times. A man is great only as he identifies himself with some social force, with some actual movement of his day, fulfilling it out of a long past, bringing it to focus and so making it definite and manifest, and as the life around him which gave him birth, adopts his will and repeats his achievement. History has many cases of human societies repeating in their lives as a whole the careers of great men. Only it is not repetition exactly; it is resurrection and continuation. Great men make history, but they make it only because they

are alive in it before their birth and survive in it, in its doing and in its thinking, after they die.[1] Would history be even thinkable without such continuity? Could we honestly call it history? What good American to-day is not convinced that he has a share in what Washington and Lincoln accomplished years ago, and also—and this one may, or may not, regret—in the doings of Benedict Arnold and Booth? And, to put a very practical question, would it not be well if in the popular consciousness great men, good and bad, were really identified with history instead of being treated as fixtures outside of it? Make them separate fixtures and you make them oracles, the spirits of quite another world, with which the demagogue, as if a medium, can excite the people; but identify them in a vital way with history and they must grow with it, speaking quite as much out of the present conditions as out of the past. Hero-worship is too often idolatry, and for my part the literalism of it is only "spiritualism" trying to be respectable. Every extravagance, of course, has to have its lawful or conventionally respectable expression.

But what, now, of friendship and family ties? Can we view these in the same light? I think we would; I think we can; I think we must. True, it is easier to speak in this large, "philosophical" way of history and of the men who have had part in it, inventing and effectively using the machinery that has enabled its progress, than of such matters as friendship and

[1] In a small book, *Citizenship and Salvation, or Greek and Jew*, published some years ago, I have tried to show this of Socrates and Christ.

family. In these latter matters the heart more than the mind is addressed. Still, the relations of friendship and kinship are not themselves born, nor do they die and all friends abroad and kin at home live and move and have their being only in these. Does it destroy or even weaken the meaning or the reality of friendship to have it said that the relation is as universal as particular or local, and as eternal as temporal? Is a relationship worth less than any one of its manifestations? Why, the universality of the relationship gives meaning or reality to any manifestation. Friendship, then, or kinship, for this person or that, cannot be separated from the experience in general. Separate it, and one's friends or kin surely do die, remaining after death, like the characters of the older history, as only ideal "influences," or as unearthly spirits that sometimes idly chatter. But in reality, friendship, or kinship, is one, not merely many, all of its members labouring together for, and forever surviving in, what it truly is. The friends, then, or the kin that lived, live still. In others about us? Yes; and in ourselves too; or rather in the relation of man to man or in the unity of all that lives. Not literally in others, then, although the meaning intended was a genuine one, nor yet literally in ourselves, for nothing crudely like transmigration of souls is in my mind, but—to repeat—in the living relationship of friends or kin. There is indeed a truth in transmigration, as also in other related notions; witness all the facts of inheritance, of historical succession or continuity, of social growth and personal character, of evolution; but it is the truth, or is near to

the truth, of a reality that is conserved even in its changing. The soldier of the past, let me say, at his death was "translated," but the mechanic of to-day is transmuted. The latter word may be stranger and harsher in sound than the former, but there is truly less violence and more honour in its meaning. So, again, friends and kin that ever lived, live still. Friendship and fatherhood and motherhood and all the relations of kin, nay, all the relations of life, that make our individuality real, that make it personal, that make it social, that make it natural, have been from the beginning, live now, and must survive forever, and by their survival hold for the present and the future life all who have ever been. Where would faith go, and where worth and responsibility, if birth really created and death destroyed, or if birth were a coming from no one knows where, from a realm unlike and apart, and death the return? Birth cannot create or introduce; it can only express, revealing and realizing. Death cannot destroy or "translate"; it can be only fulfilment at a crisis.

The mere wordiness of a philosopher! Possibly. And yet Christianity has very nearly implied, if indeed it has not actually said, and said or implied again and again, exactly the same thing. To science, I know, we are peculiarly indebted for the conception of the organism, or the organic, which enables us to bring together the universal and the individual, the eternal and the temporal, the omnipresent and the local, without losing the worth or the reality of either, and of course—for so they would not be together—without erecting separate quarters, or worlds, for their

occupation; but, when all is said, science has only applied at large the very special and personal doctrines of Christianity, and has therein helped Christianity to a better consciousness of itself. The Resurrection, the Immaculate Conception, the Divinity, the Immediacy of the Kingdom, the Sacrifice, and the Brotherhood of Man are doctrines which one and all testify quite directly that our real individuality, our real being, lies not in a separate existence of any sort, here or hereafter, but in the abiding relations of the actual life now. In these the Christ resides, the always living Christ. What else can the following mean? "In as much as ye have done it unto one of these, my brethren, even these least ye have done it unto me." And again: "For whosoever shall do the will of my father which is in heaven, the same is my brother and sister and mother." The living Christ, one of the dogmas of our day, is more than a fancy and more than a dogma, and for no one so truly as the scientist, the evolutionist. Christ was too great, too deep-lying, too far-reaching in human history not to be more. The letter of Christianity, we are often told, has got to go, but it is quite as true that the real letter of Christianity has got to stay, has yet to come: the real letter, I say, not the parody of a mere physical appearance and reappearance nearly two thousand years ago. If Christ was really not born as men are born, if he did not really die, if truly he still lives in and with our lives to-day, if Christianity honestly means the brotherhood of humanity and the divinity of man, then simply the Christ was more than a pagan's messenger from another world, and

more than the creature of a single moment in history or a single place; also he reveals to us more in ourselves than any of these things, and instead of resorting to such notions as parthenogenesis and trance to explain the birth and the resurrection, we must rather recognize in him, and in ourselves, an individuality that has, not in spite of, but because of, birth and death, a share in, a place and a part in the immortality of what is real. Now I am not a good preacher, plainly, nor am I exactly a sympathetic theologian, and also I know too well the defects of argument through scriptural quotation; but I have to hope, as personally I believe, that in the foregoing paragraph, given in conclusion to the discussion of immortality in the doubter's world, I have suggested what at least is not an unchristian appreciation of Christianity.

Our journey in the doubter's world here comes to an end. All things are real, yet none final. The spiritual and the material in life are sympathetic even to the point of being vitally at one with each other, thought being free and practical, and material nature being lawful but law-free, and mechanical but productively so, and being in her productiveness definite opportunity, not blind necessity, to human life. And, the "universal individual" being dead, having returned to the other world from which he came, all particular individuals have real and personal shares in the life that is, in the work that is ever to be done. Living or dying, the individual, as we have found him, is the mechanic of to-day, not the soldier of yesterday.

CHAPTER X.

DOUBT AND BELIEF.

There was once a brook that ran, at times slowly, at times more rapidly, through fields and woods, under trees and over rocks. At every chance, whatever the obstacles in its course, it fell, much or little, as it could; but impatience and uncertainty filled its life as the minutes and the hours passed. Had life nothing more in store for its troubled waters? Was this groping downward all? Were the memory and the accompanying hope, which haunted every thwarted move, of no avail? Would true fulness of life never be attained?

But a great moment for the brook came, rewarding it at last, bringing assurance in place of threatened despair. A precipice intervened, and the waters fell hundreds of feet; a glorious fall —spray, sunlight, colour, eloquence.

"Now," spoke the brook from the deep, smooth pool below, "now I have lived; now I know that my life was real and that my life was good, for I have found myself, I have found my world; and I have found them where I thought them not."

And, speaking so, the brook flowed on contented.

THE confession of doubt, which we set out to make with all possible candour, is now nearly concluded even to the harvesting of the promised fruit. The confession began, as will be remembered, with recognition of certain general and easily demonstrated facts, of

which there were five, as follows: (1) We are all universal doubters. (2) Doubt is essential to all consciousness. (3) Even habit, though confidence be the horse, has doubt sitting up behind. (4) Like pain or ignorance, doubt is a condition of real life. (5) And the sense of dependence, so general to human nature, gives rise to doubt, although also, like misery, it always seeks company—the company of nature, of man, of God. Then, after this beginning, which left us by no means so hopeless as might have been expected, we proceeded to try the doubter, nay, to try ourselves, first before the court of ordinary life with its ordinary views of things, and secondly, before the court of science, and, in both trials, we found the doubting justified. Alike in ordinary life and in science, even in science where such a result was perhaps hardly to be expected, we found what at least seemed like illusion and what certainly was paradox, and almost against our will we had to conclude that a spirit of contradiction and duplicity and vacillation dwelt at the very centre and the very heart of our human experience. This spirit of violence, too, as the evidence of its presence accumulated, bade fair to dispel whatever hope our confession had left us. Yet out of the evidence there gradually did appear a reason for deepest assurance, and in the end our fear, not our hope, was dispelled. Contradiction was seen in its very nature to possess positive value. It was seen to protect experience, even while experience was specific and concrete, definite and individual, against any fatal digression or partiality of view. It was deeply conservative, corrective, and

compensative in its effect, but it was all this without ever being merely negative or destructive towards anything, since its own efficiency required persistent individual differences. To experience it gave movement, constant unity or wholeness, realistic value and poise, practicality, and, lastly, social expression. And we were able, accordingly, to conclude, in so many words, that both ordinary life and science, so given to duplicity in their standpoint and in their ideas, were really building well, far better, indeed, than they seemed or than they clearly knew. Contradiction, in short, as we came to see it, meant unity, but not an empty, abstract unity; it meant unity rich and real with an infinity of differences; and so what had at first appeared an uncompromising reason for doubt turned, right before our doubter's eyes, into an unassailable ground of belief, making the very world which we had been so uncertain about a world for an inviolable faith. But truth, we saw at once, could no longer be identified with a formal idea, known or unknown or unknowable; reality could no longer have the character of a fixedly constituted thing, whether such a thing were present in experience or not; and perfection, even the perfection of God, could no longer be a mere status, a passive possession of certain characters, attributes, or prerogatives. Truth became, as was said, in want of a better word, a spirit; reality was a life; perfection was a power. And thereupon, with the new view thus afforded us, coupled as it was especially with the sense in which personally a man could claim reality for himself and yet be party to the factional life of society, we were able to turn to

Descartes, an early modern doubter, a father confessor of many doubters, and, overlooking some of his shortcomings in thought and character, to appreciate both the use that he made of doubt, the intimacy that he, too, found between doubt and faith, and the world of reality, of most vital sympathy between the material and the spiritual, of genuine, personal individuality, and of immortality, through which he led us, doubter, universal doubter though he was. That great Frenchman, as we were enabled to understand him, got back the world, the self and the God which he seemed to have lost, but he got them all back transfigured. He got them back, not by denying and excluding what appeared negative and treacherous in their nature, but by facing this and using it, by accepting it and turning it even against itself. The very Paris to which he returned as believer was the same Paris, the Paris of doubt and of evil in all its forms, that earlier, hopeless and despairing, he had put behind him. And, once more, his experience was ours, and so helped us to interpret and deepen ours, quickening the value of our own previous discovery that within the very sources of doubt lay the real bases of belief. Our own doubted world of what was relative and artificial, and above all contradictory, had already turned, without loss of anything that was in it, into a world of reality and belief.

And so, for this concluding chapter, as but a sort of focussing of what almost from the beginning has been borne in upon us, but especially at the close has been rich in reality and meaning, we have a sixth general fact, which may now be added to the original five.

We believe through our doubts; we believe, not in something apart, but in the very things we doubt. To this fact really inclusive of all the others, or if not to this fact at least to this conviction which we have achieved here, we shall now turn, and in our concluding chapter we may even forget, or retain only as the appropriate background, many of those more special or more technical details that from time to time have occupied us. After so much, that to some, if not to all, who have followed me to this place, may have appeared open to the charge of being mere theory, certain simple, very practical considerations, appealing quite as much to the emotions as to the reason, can hardly be out of place. Those who are already satisfied, who foresee only repetition, who are themselves without emotion, or who consider anything like the drawing of a moral to be as useless as it is inartistic, need read no further.

I.

We believe in the very things we doubt. Doubt, this is to say, can destroy nothing. It only calls for closer scrutiny, for wider and deeper view, for greater achievement. Its effect is only to make over, renew, or fulfil what has already been and must ever remain an object of faith, and so doing it keeps the old faith alive. It questions all things, but properly, consistently it raises, not questions of mere existence or reality, but questions of meaning and worth, and whatever it truly questions it always quickens. Have

we not found that with its inborn and insatiable passion for truth doubt must believe in everything, and that to satisfy this passion, since all things must work together for what is real and true, it must reject nothing but seek even the universe in everything? All things, from the momentary sensation in your little finger, or the tree yonder on the lawn, to the personality of God or the divinity of Christ as an idea in the consciousness of millions of people, all things are; they are in experience; they are unassailable realities of experience; but—and just this is as far as the truth-loving doubter, the doubter who is honest with his own self-consciousness, can go—what really are they? *What are they?* is such an honest question. In this question, too, there is more reality for the things inquired about even than in any man's assertion that they are this or that they are that. But the question *Are they?* would be downright treachery. We doubters, then, believe, but would ever know what we believe; we have, yet would realize every possibility that what we have affords.

Doubt, I repeat, destroys nothing. From time to time certain doubting people have called their prophets impostors, and have imagined themselves able to put the impostors out of the way, but, as history has always shown, only with the result of reviving among themselves and often of awakening in the minds and hearts of others the sense and conviction of just that for which the offensive impostors may have suffered violent death. Even history's petty impostors, too, as well as those who have proved heroes and great leaders, have always had their justification. An ab-

solute impostor has never been. Again, certain people have cried illusion and unreality at things political or moral or even at things physical, but only in the end to feel, and to make others feel, first, their evident narrowness, if not their actual dishonesty, and then their need of a more hospitable idea of what is valid and real. Nothing can be, or ever has been, unreal. And, in general, doubt of a thing or a person or a God only needs its own conscious assertion to turn actually into an appeal from its particular object to the ideal or spirit or principle for which the object had stood, and upon this appeal even the object that has been for a moment condemned is justified and glorified. Thus, doubt may deny or depose or put to death, but as it is honest it also realizes or restores or revives. Through doubt the sensuous, which is the particular and visible, is ever becoming spiritualized; even this corruptible puts on incorruption and this mortal puts on immortality. Or, in these words, if we doubt we may reject the object, the letter, but we cannot reject the letter without accepting and asserting the spirit, and we cannot assert the spirit without recalling and exalting and even worshipping the letter. The rejection makes for universality by casting down the barriers of the particular experience of time or place, of person or nation, of the Greek perhaps, if again I may look to history, or of the Jew or of the Christian, while the recall and the worship make for definiteness. Without the previous rejection the worship could be only idolatry. So, as Descartes will be remembered virtually to have said, doubt is innately loyal to reality in

everything, and just through this loyalty the world it spurns, the world of God and man and nature, is for ever called back, a real world once more, because a realized, a spiritually realized world. Why forget, as so many seem to, that reality is an achievement; achieved it may be, as with the brook, even by a great fall?

But have you ever climbed a mountain up and up and up, through thick woods, over rough, almost impassable trails, into clouds dense and chilling, stormy and angry, over treacherous snows and frightful cliffs, and come out at last on the very top to see both earth and heaven, yourself between, the clouds dispersed, the hardships and dangers all forgotten, the whole world real and yours? Well, that is doubt become achievement. Have you worked at some problem of everyday life, or a problem of science or philosophy, patiently or impatiently applying all the rules and precepts at your command, trying every resort known to you, and in final desperation many you only guess at, and then, when failure seems almost certain, caught a glimpse of the real meaning and the real way, attaining to an insight that reveals a new world to you? That, too, is doubt rewarded. Have you ever visited, perhaps more curiously than reverently, some great Catholic cathedral, or, better still, some temple of the far Orient, and watching the worshippers there, suddenly had a vision of religion as greater and deeper than any Protestantism or even than Christianity? That, again, is doubt's achievement. Have you ever suffered a great heartrending disappointment, let me say a great personal loss, and

found it seemingly impossible to return to the routine of your former life, but nevertheless, almost imperceptibly, come into a sense of presence and gain from the very thing that seemed taken from you? That, once more, is doubt without its sting, robbed of its victory. Doubt means sacrifice, often enormous sacrifice, but always a more than equal gain. The light that casts the shadows of doubt, when one can face it, and really does face it, as, for another example, in this book we have been trying to face it, is so splendid and so uplifting.

So, a third time, doubt destroys nothing; it only makes reality forever an achievement and belief a constantly active life. The fact, now no stranger to us, that doubt is social, also shows this. Doubt is social, as has been said, since by its isolation it makes the longing for company, and by its greater freedom the larger opportunity for company; and since also the very contradictions or controversies which arouse it are never merely individual, being always social also, and social relationship means effort and sacrifice, and is accordingly a peculiarly interesting witness to the losses that doubt must suffer for its greater gains. Doubt, in short, shows belief, working not merely for the reality of all things, but also for the love of all men. As social, then, as working for the love of all men, doubt involves sympathy. Yet not an easy, passive sympathy. A restless, labouring, always growing sympathy is the sympathy of the doubter; a sympathy that makes all it covers labour and grow also. Does it hurt your business to doubt it sufficiently to make you able to sympathize with the interests of

another? To this question Adam Smith gave a timely answer when at a critical moment in industrial history he found in sympathy a condition of successful competition. Does it hurt your politics, if you can lose enough of the partisan's conceit or the jingo's bombast to sympathize with the other parties or the other nations? The value of real independence in politics is one answer, and the idea of federation among competing states, or of international polity as a basis of successful national life, is another. Does it hurt your understanding to outgrow your own profoundest ideas and see some validity in the doctrines and formulæ of others? Does it hurt your Christianity to make concessions to another's Christianity or to the worship of any land or any time? The reading of the last great book, or the visit to the pagan temple, is an answer. Simply the doubter the world over, social being that he is by nature, imbued as he is with a living sympathy, must recognize, and must labour to maintain or achieve, the unity of humanity. For him just this is God, or truth, and it is worth far more than anybody's religion or than anybody's rational formulæ. It must stand, too, both as the universal authority which both religion and reason have over the lives of men and as the motive or living principle, or spirit, by which particular religions and particular formulæ, however serviceable, are forever unstable.

But doubt, which is thus social and imbued with a living sympathy, and which, though requiring sacrifice does not destroy belief, but only makes belief active and reality an achievement, may be viewed here in still another way. It shows mankind using or spending

instead of either hoarding or throwing away any of the resources of knowledge and faith, of developed habit and personal association, which life accumulates. Some doubters, as men say in the business world, invest what they have; some speculate. Some are conservative, even timorous; some are very rash. Yet doubt as expenditure is necessary to all who would enjoy the proper, natural increase of their possessions, and while the rash, be they transgressors or reformers, sensualists or materialists, or equally impractical idealists, at a throw may win or lose great riches of mind or spirit, the timorous and ultra-conservative, the "practical" and conventional, are not less dependent on chance. There are the new rich, too, and the aristocratic poor, and both remind us strongly that the real use of what we have is not only a duty, but also a very sober duty. To hoard blindly or spend rashly is to risk unwisely, perhaps to lose all, or, if to win, to win idly; while to use well, to doubt clearly and honestly, to doubt even in one's belief, to doubt only for fuller meaning, for broader and deeper life, for richer companionship, is personally to earn lasting spiritual treasure.

Modern science, whose knowledge comprises merely working hypotheses, the means to truth, not truth itself, or if truth, then only a living, growing truth, affords one of the best examples of this. Modern science is a great faith, a great belief, but only because it is a life, not a status or possession, only because it is a constant spending, a constant using of knowledge, that earns interest, even compound interest, as regularly as the years go by. And experience in

general, as well as science, is also a great belief, and also only because always doubting and so always using and always earning.

Doubt, in a word, is more than a necessity of experience; it is distinctly a duty. Experience itself is but another name for that hard master who says to every unprofitable servant: "Thou wicked and slothful servant, thou knewest that I reap where I sowed not, and gather where I did not scatter; thou oughtest therefore to have put my money to the bankers, and at my coming I should have received back my own with interest. Take ye away therefore the talent from him and give it unto him that hath the ten talents."

II.

That doubt is only the expenditure of the treasures of life for future gain human history bears witness in a striking way. Times of a general scepticism among any people have always been also times of conventionalism and utilitarianism towards all things great and small. To employ again a word used before, this means that life has come to regard its establishments of all sorts as only "instrumental," not final. Of course, conventionalism and utilitarianism are commonly decried, just as the accompanying attitude of doubt is commonly decried; but the fears, though not altogether idle, are usually short-sighted, for there is gain ahead. In a certain community, for example, patriotism, morality, and piety, long identified with specific forms and customs and doctrines, have come at last to seem quite unsubstantial. A rising cosmopolitanism perhaps has undone the first, sensationalism

or naturalism the second, and mingled ritualism and secularism the third. But however unsubstantial all three may appear in consequence, they are nevertheless retained as still useful, as means to some end, being at least good things to wear or to assume in any way, and from the change, though it appear so like decline, the community in the end is most decidedly enriched.

How can this be? In answer, let us beard the very king of the race of the conventionalists and utilitarians in his forbidding den. Machiavelli, with his teaching that the end always justifies the means, and his open advice to the leader who would be successful, to make a point of at least seeming loyal and good and pious, shows a typical mingling of the sceptic and the utilitarian in sacred things. Moreover, what Machiavelli taught was also common practice in his time, and soon became a principle of brilliant statesmanship all over Europe. And to add meaning to his case by associating it with others, conspicuously in Descartes' time, as we have observed, and also in Athens at the time of the Sophists, and in Jerusalem when the Pharisees flourished, the same standpoint was much in vogue; while in our own times we do not need to look far to find it. Education, social life, politics, religion abound in it, for the tribe of the Machiavellists is no more a lost tribe than it is one that began with him whose name it bears. If the name is too offensive to some by reason of its connection with a particular character and a particular period in Italian history, for Machiavellism they may substitute institutionalism, certainly a more innocent term at first sight; but the offensiveness, though hidden,

or half-hidden, still remains a part of the fact with which we have to deal. The meaning of institutionalism is just that of some asserted end justifying any available means, and so under cover of its peculiar conceits sanctioning violence. Watch any institution and see how one or another of life's objects of devotion is become, or fast becoming, a mere utility. The institution makes life mechanical, and doing this it is as treacherous as it seems loyal to the treasured things of life, the developed ideas and established customs; it is even as sceptical towards them as it seems faithful; and in the spirit, if not in the letter, of Machiavellism it shows them no longer implicitly worshipped, but in use, which is to say, "put to the bankers," and so robbed of their character of sacred treasures. And as for Machiavelli himself, it may be worth while to remember that with all his offensiveness he has undoubtedly been very much maligned, and that to any student of history he seems only a very apt though an unpleasantly outspoken pupil of the most powerful institution of his time—the Roman Church—for which things moral and religious had certainly become effective instruments of very worldly ambitions. So in Machiavellism or in institutionalism, the name now being indifferent to us, we see worship passing into use; we see sacred things become secular, or things supposed final becoming only instrumental; and we see, therefore, what appears like loss or decline.[1]

[1] As a positive event in history, belonging to the fifteenth and sixteenth centuries, Machiavellism was symptomatic of the great change of the period. Cherished institutes, whether of politics or economics, of art or morals, of the spiritual life or the intellectual life, were becoming instruments. Thus, democracy was supplanting monarchy, Protestantism Catholicism, modern science scholasticism, etc.

But can there be anything besides loss or decline? This again is our question, and the answer now comes quick and decisive, whether we are thinking of Machiavelli or the Sophists, of the old-time Pharisees, or of those in our own life. Decline and even fall never tell the whole story of anything, and just because they mean use, even secular use. That men must worship is surely true, but also men must and do use, and the use, in spite of the strain of the offence and resistance which it is sure to arouse, brings profit always. Use, secular use, may imply sacrifice of the letter or the established form, but it always leads to liberation of the spirit. In scepticism, therefore, and the coincident conventionalism and utilitarianism towards sacred things, in the institutionalism which harbours all these, though often darkly and secretly, we may always read, what in truth history has again and again exemplified, the throes of birth, the birth of the spirit. Must it not be that any visible institution, be it ecclesiastical or industrial or political or educational or ceremonial, just because an institution designed in some way to serve an active, growing life, is always an outgrown, falling institution? As in the case of the Roman Church in the days of Machiavelli, an institution upon its establishment actually justifies its enemies by its own practices, while the enemies, so justified, do but lay it bare, exposing its hidden thoughts and ways, forcing reform upon it, and perhaps in the end themselves "remaining to pray."

So is the spirit born, and so do we see in the personnel of society what a wonderful triumvirate, work-

ing for the real growth of human life with a power that nothing can resist, is made by the avowed sceptic, the loyalist, always secretly conventional and utilitarian, and the reformer, the great spiritual leader. Even Machiavelli in his most offensive pronouncements must have felt something between his lines which expressed would have transfigured their meaning, not to say also his reputation, greatly, and, consciously or unconsciously, he was certainly a party to the development of what is best in modern life. As for the Sophists, whether we see them as sceptics or conventionalists, did they not have Socrates among them? Between them and him, when all is said, the difference was only that between talent and genius, between great formal ingenuity, which always means opportunism, and really vital insight, which, shattering opportunism with its own weapons, means loyalty, not to existing forms, but to the spirit dwelling in the forms. Much in the same way, too, the Jewish Pharisees had Jesus, a contemporary, who did but recognize and earnestly teach what they were really practising, namely, the utility of the law, or the law for man, not man for the law. Only what for them was merely a selfish opportunity, absorbed as they were in the vested interests of their time and generation, was manifest to him—who was a genius and who used for real gain the talent which they hoarded—as a great spiritual fact, as a universal truth, bringing opportunity and freedom to all men under all law, not to some men under one law. Thus they were institutionalists; he, by merely turning their narrowness into a principle of all life, became a reformer, and, indebted to them as he was, he could

forgive them even when they opposed him. Genius always forgives; the spirit always recalls and cherishes the letter that has given it birth.

So the institution as an historical fact, whether we see it with the eyes of Machiavelli or with those of a pope, with the eyes of Protagoras or with those of Socrates, with the eyes of the Pharisees or with those of Christ, may show worship turning into use, the sacred becoming secular, but it shows also the life of society becoming enriched; it shows investment for future gain; it shows doubt, not destroying anything, but achieving only what is real; it shows the life of the spirit.

III.

No period of man's earlier doubting can be more interesting than that of the centuries just prior to the Christian era, when the peoples of the Mediterranean contributed so much, directly and indirectly, to the preparation for Christianity and to the discovery, or revelation, which finally came and in due time changed the ancient to our modern world. What the preparation was has already been indicated, at least partially, in the references that have been made to the Sophists and to the Pharisees. Christianity has been only the interest, the earned increment, or rather should I not say the compounded principal, of the scepticism, of the formalism and the utilitarianism which beset the Greeks and the Hebrews, to mention no others, as their peculiar civilizations were merging into the larger and deeper life of a great empire. In their several lives the demand came, and came, too, from within, not merely from without, as in all life

it must come, for use of their gathered treasures, whether spiritual or material, and the rise of Rome was but the result of that demand satisfied, of the use realized. As for the scepticism, this with all its incidents made the use possible, made it possible for the peoples to give or relinquish what they had to the larger life to which they all belonged, while the religion of Christianity spiritualized for them all the resulting empire.

Those wonderful races of the Mediterranean, who achieved—at least some of them—such great things in all that counts for civilization, became at the last most extravagant sceptics, not only formulating, but also very generally living up to, the conviction of ignorance and forgetfulness of reality. Everything which their long past had gathered for them they resigned—or let me say crucified—and themselves they threw, as if with an investor's recklessness, upon a world of chance or fate, upon a world seemingly of empty forms in all human relations, a world of disguises for license and of mere conceits of moral power and religious piety. Sensuous mysticism and pantheism, formalism of all kinds, Stoicism, Epicureanism, legalism, and cosmopolitanism were crosses upon which one people and another, one class and another, nailed their long-cherished devotions, their love of God and man and nature, of temple and family and country. A great doubting, then, was truly theirs. A great sacrificial offering was their preparation for Christianity. In a way, with a completeness that seems to have no parallel in history, they put their talents to the bankers—despairing, of course, but hoping also,

if only their doubting, when it came, may be supposed as genuine as their earlier believing. From the North and from the East and from the South their good men came, and their rich and their wise, and laid what they had at the feet of the life that was new born.

People read their histories so differently. The pagan doubt, the Christian revelation and belief, the conversion of the pagan world to Christianity, the Renaissance, in which the conversion was in a sense reversed, and the Reformation mean such different things to different people. Some must still have it that paganism, or pre-Christianism, ended in absolutely blind despair, in the avowal of complete failure—as if such despair or failure could ever find words for its own utterance; that Christianity came into a hopelessly pagan world wholly from without, came into a world of nothing but unmixed doubt, and brought with it nothing but unmixed belief; that the conversion was a sort of conquest, by a power all its own capturing the pagans, so wholly unnerved as to be quite incapable even of a futile resistance; that the Renaissance, restoration as it was of the pagan life and thought, was at best a great condescension on the part of Christendom and at worst an unfortunate return to the pagan idols; and that in the Reformation the Christian Religion Militant did but retreat upon the Bible as its impregnable fortress. But such history can hardly be our history here. For us the rise and the progress of Christianity have had quite a different character. To strike at the foundation of that whole structure the pagan doubting was too articulate. It was, also, too earnest. It was too genuine. The races did indeed resign, as with

an investor's recklessness, all that they had, but their recklessness was not unmixed. Their doubting had hope in it as well as despair. It still loved the spirit of what had been even when it betrayed the letter. It had its martyrs, too, as well as its suicides; its sense of life as well as its enervating fear of death. Say what you will, then, a great, warm, yearning belief dwelt within it. And so, just because the pagan doubting was too earnest and too genuine and too articulate, because it was, in truth, a great sacrificial offering, the crucifixion on Calvary was also too true to life at Athens and Alexandria, as well as to life at Jerusalem, and the resurrection of the spirit was too true to life at Rome; they were too true to mean anything but fulfilment and achievement. Everywhere, in every place and in every department of life, the letter had been rejected; but everywhere also—and this, nothing else, was the true conversion to Christianity—the spirit was accepted. Acceptance of the spirit, too, meant that in good time the letter would be restored, as indeed at the Renaissance it surely was.

Christianity, therefore, came when the times were ripe for it. It came not from without, but deeply from within the pagan life of the Mediterranean. Moreover, if in this way, not in that other way, we must read the rise of Christianity, then we must read both the Renaissance and the Reformation under the same light. The Renaissance, as was just said, brought a restoration of the letter; but, necessarily, of the letter under the light of the spirit, of the letter transfigured. The Renaissance, so dramatically manifested in the Crusades, was only Christendom returning to its

birthplace. With its crusades to Jerusalem, to all the old capitals, to the pagan ideas and institutions, to the ancient languages and literatures, Christianity rediscovered itself in the past, winning back in this way some of its childhood, curing a homesickness that a worldly church had made it feel, securing for itself such a deep experience as comes to a man who, after years of wandering and forgetting, has returned to the home of his infancy. And as for the Reformation—if indeed this was a retreat, shall we say, of a defeated religion upon the Bible, its supposed impregnable fortress—we need only to remember the pagan origin, the Hebrew and the Greek inspiration, and the Roman atmosphere of that sacred book.

And of the relation of Christianity to paganism, just one thing more. The Christian revelation, so wonderfully portrayed and enacted in the life and character of Jesus, was only an idealization, a spiritual interpretation, of the very present, the thoroughly actual life of the time, of the life that the pagans, doubting but believing, despairing but also trusting, resigning all but hoping for more, had already brought upon themselves; a life of self-denial, of common, universal humanity, all men being "members one of another," and of perfect faith. Perhaps the self-denial was bravely concealed in an accepted subjection, but it was not less real. Perhaps the common humanity was military and imperial, yet it also was real. Perhaps, too, the faith was blind and fatalistic, but it was nevertheless faith. Can faith go farther or do more than fatalism? The pagans, then, had become Christians in fact or status, and Christianity came, breath-

ing life into the bare fact, into the self-denial, and the broad humanity and the faith, and made these not the mere phases of bare fact or condition, but motives and ideals, manifesting them heroically in a single human life, and so in the form and with the power of a personal discovery of self.

Where genuine doubt is the God is always born.

IV.

To come down to more recent times, for open belief in what they doubted, for doubt well controlled in its expenditure, for doubt as raising questions of meaning rather than the more radical questions of reality and existence, perhaps no people of Christendom has been so conspicuous as the English. Of course, as has been remarked, expenditure may often become too conservative, and the question of mere meaning may encourage casuistry; and into the pits of undue conservatism and casuistry the English have certainly fallen more than once, so that certain critics have even found them, and in some measure the Anglo-Saxons generally, given over to hollow disingenuous living. In English political life, for example, the attitude during the conflict with the American colonies in the eighteenth century affords a conspicuous illustration of this, and intellectually and religiously English life has its chapters of an unfortunate reserve. But although no good and honest American can fail to find objectionable solecisms, some of them decidedly British, in the formulated and manifested life of the Anglo-Saxons; nevertheless English history is a very obstinate argument in behalf of the English temper. Frenchmen, though

so neighbourly to England, have been conspicuously more radical than the English in their doubts and problems, and in consequence have been at once more reckless and more vacillating in their solutions. The English, always so practical, throughout their history have held to their world as primarily real and consistent, and have therefore neither lost themselves whether in fear or in hope of some other sphere, nor been only fickle servants of this. Consistently and constantly they have sought only the ever more effective use of what they had, of what they found about them. Not revolution, then, but evolution has been the keynote of their history. Their other world, in practice, has meant other parts of this—witness their colonial activity as well as their missionary enterprises—or only other in the sense of deeper and fuller expression of this—witness the testimony of so many of their historians. Macaulay, for a classic example, dwells at some length and with much emphasis upon the English people's genius for a progressive conservatism, remarking that in religion and politics and social life they have given up less of their past than any other people, and yet at the same time have kept in the forefront of modern progress. It may be contended that this was truer in Macaulay's day than at the present time, but there is enough truth in it now to give it point.

Instead of courting doubt as if it had worth in itself, the English may be said on the whole to have courted candour. Candour does not exclude doubt, but it is never merely negative, and for this reason it is peculiarly normal and wholesome, although of course having its own dangers. To be candid, in the

sense of the word here intended, is to accept what *is*, which in lack of a better term we may call nature, and to insist only on seeing this, and living up to it, deeply and fully. The doubting French have appealed to truth and righteousness or reality as only an innate conviction, and so have easily missed the possible realism of such conviction. Descartes made just such an appeal, and though he did indeed gain, or rather regain, a real world, the reality did not quite receive even from him, as we have seen, its full due of closeness and intimacy with human life. Rousseau, later, made the same appeal, finding his own personal will intrinsically good, but his philosophy, though a passionate, uncontrolled belief in reality, was taken, not unnaturally, as a call to revolution. But the simple, candid English, on their side of the Channel, have appealed, not primarily to anything abstractly within the self, not to a mere ideal or sentiment or subjective belief, but to reality embodied and palpable—in a word, to nature, the great all-inclusive sphere of candid experience. In France, again, nature has failed ever to be a thoroughly practical thing, a positive, directly interesting, wholly pertinent situation. It has been a cry, of course, sometimes of alarm, sometimes of hope; a great enthusiasm, too; a dream; an ideal—if not unideal—substitute for the present life; a sphere often, too often, quite opposed to God and government and organized society; but never, or almost never, a present responsibility to be clearly recognized and calmly measured; never, or almost never, a part and parcel of the present life; never, or almost never, something that lives in and

through God and government and society. In England, on the other hand, so differently, if Bacon and Locke and Berkeley and even David Hume may be trusted; if Shakespeare and Coleridge and Wordsworth, or Hobbes and Burke and Blackstone, or Charles Darwin and Herbert Spencer are representative; in England nature has ever been very real and very present; not outside of manifest English life, but actually incorporated in it. How else understand English deism; the *laissez faire* economics; the peculiar nature and growth of the English constitution; the pragmatism of English science; the sun-warmed atmosphere of English literature; the nature-homage and bodily vigour of English recreation? How else account for the English people's progressive conservatism?

The most radical doubt must eventually appeal to nature and, what is more, must sooner or later bring man to live with nature practically and responsibly, intimately and sympathetically; but candour, like the candour of the English, that never doubts without at the same time believing, lives ever with her. Perhaps the English people need to have what they seem never to have had—though the Armada threatened something of the kind, and the loss of the thirteen colonies, or even the Boer war was, not without its value—a great, overpowering disaster, a deep all-searching despair; yet, be this as it may, their part in the struggle of a life that must always doubt in order to grow is always instructive and is often inspiring.

V.

The sceptic has been referred to here as a member of a wonderful triumvirate, and, leaving now the field of historical illustration, we must return to that characterization. The other members of the triumvirate were the loyal defender of the formal law and the great spiritual leader. All three were said to be parties to the real life of the spirit, and the sceptic seemed to have a co-ordinate part with the others in this life. But was I not conceding too much? Certainly there are many who will wish to protest. Yet I was only making the doubter and the believer face each other squarely and honestly. *Both* are parties to any reform. No leader or true reformer ever can neglect or betray the contentions of either. In the organizations of society professional conditions may hold the two characters apart, but vitally they always belong together. If truly we must believe in what we doubt, how can there fail to be between them, not indeed a shallow and sentimental sympathy, but a deep, heroic sympathy that is always superior to the differences of the disrupted life, of a professionally organized society, without betraying them?

At once opponents and companions—this is the truth about the doubter and the believer. Consider how taken alone neither would be quite justified, while together both are justified. Perfect approval or, for that matter, perfect disapproval, can belong to neither singly, not to you or me in our doubting, even though we fully confess, nor yet to him who hides his doubts in an outward show that

almost deceives him as well as others. Of course in all matters as well as in this of intellectual honesty, the conceit of individual righteousness or individual possession is a very strong one, but it is "easier for a camel to go through a needle's eye" than for a man who is anything or has anything to himself alone, to enter into any kingdom. Is not life everywhere a movement and a struggle? And who is there, rich or poor, law-abiding or lawless, righteous or unrighteous, faithful or treacherous, believing or doubting, who can stand aloof, or who needs to stand aloof, and say to himself: "I personally, within my own nature, have no part in the struggle; for good or for ill, I am just what I am, and with him that is against me I have and can have no dealings"? The doubter, then, and the believer may have to look askance at each other; the looking askance may be quite appropriate to the conflict in which each has and must feel his social rôle, but, at most and worst, they are only jealous lovers. They may be given, and profitably given, as much to quarrelling as to gentleness, but they love still, and, to borrow part of a line from a familiar college song, their battling love affords just one more view of that which "makes the world go 'round"—instead of off at some tangent.

Should some one awake to new views come to me and ask which I would have him do, break away from his traditions and all that they involve or hold to them, I could only say, in the first place, that, whichever way he turned, he would have some, though only some, justification, for he could not be either right or wrong exclusively; in the second place, that his de-

cision not only must be made, and made strongly, one way or the other, but must also be his, not mine; and in the third place, that no decision should ever be an absolutely final settlement. Decisions are only means to action, and as such they can settle nothing finally. They are not even protocols of peace, often being, on the contrary, merely signals for firing at closer range. Sometimes I know they seem even like real treaties, providing the terms of a permanent harmony, and they appear to determine just where the parties to them really stand. But, after all, they do but bring the conflict home, making it domestic or personal instead of settling it. So once more to my inquirer I may say only this: Choose; fight; fight fair; fight with yourself as well as with your enemy; with your belief, not merely with his dogma; or with your doubt, not merely with his dishonesty. So fighting you and he will truly be at once opponents and companions.

VI.

Is life, then, only a comedy? Is it no better than one of those well-conducted duels that save the honour of all concerned but bring injury to no one? Let me say, in these last pages, that life appears to be three things, to which I should like to call attention. It truly and seriously is a comedy; secondly, it is poetic; and lastly, it has all the gravity and earnestness of duty. Its very tragedy comprises all of these. An old teacher of mine, a much respected and somewhat old-fashioned professor at one of our larger universities,[1]

[1] The late Professor C. C. Everett, of Harvard University.

once published a book entitled, *Poetry, Comedy and Duty.* Exactly what his reasons were for associating these apparently incongruous phases of life I do not recall, but the man and his title have remained pleasantly and significantly in my memory, and the reasons which follow, in substance if not in form, can not be very far from his.

Thus, as to the comedy of life, we need only to reflect that where extremes always meet, where there is always conflict, but conflict of such a nature that the parties to it not only may change sides, but also in a genuine sense are always on both sides, in such a life politics cannot be alone in making strange bedfellows, but the opportunity for comic situations must be unlimited. A life in which reality has no residence, and truth no place where to lay its head, in which fools may utter wisdom and the wise may speak folly, in which reformers are easily confused with transgressors and death itself is said to be life, is bound to be richly and deeply humorous. Of such a life there can be no understanding, into it there can be no insight, without the keenest sense of humour. To say no more, that doubter and believer are companions as well as opponents, is cause for a deal of merriment—at least among the gods.

But life's comedy is also a poem, and no one save a poet can truly comprehend it. Even a metaphysician must be not merely a humorist, but also a poet; perhaps he must be more the poet than any other. Poetry is the portrayal of life through suggestion of harmony, or poise, among its conflicting elements. Nor can life be seen, or known, in any more direct

way; only the balance of opposites, which always makes the poem, can possibly present it to our ken. Commonly men feel this when they insist that all portrayal of life, or of reality in general, must be dualistic. Dualism, be it the theologian's or the moralist's or the metaphysician's, the statesman's or the scientist's, never is and never can be anything but so much poetry; richly and deeply significant always, and always alive with what is real, but always poetry, never prose. Can a reality, that is real only if, to the forms of experience, it is always a *tertium quid*, can such a reality ever be present to any other than a poet's consciousness? Reality is not knowable face to face; it is beyond the reach of positive knowledge; though dwelling in, and informing all knowledge, it can never come to the surface of knowledge; for so, to its own betrayal, it would take sides and get a habitation and a name. True, by analogies one may conceive it, as the religious man thinks of God's personality, or as the philosopher thinks of the unity of his world, or as the scientist thinks of nature's law; but the analogies are always so many tethers, and are accordingly necessarily partial, whereas no whole can ever be quite in kind with any of its parts. We may conceive reality, then, by the use of analogy—that is, by projecting what we do know of one or another side of life beyond its natural sphere; but such projection, at least for him who has both insight and humour, who feels the limits of his knowledge and the grandly transcendent way in which he has used his knowledge for the crossing of some chasm, and the solution of some conflict in his life, is poetry. For

him who is lacking in both insight and humour, who sees just what he sees and no more, who insists on making reality accord literally with his own formal experience, it is only prose. Prose is simply formally consistent experience, experience that is wholly bound to some determined standpoint, and, being this, in what it presents—that is, in its subject-matter—it is always, not adequate and inclusive, but partial and narrow and one-sided to reality. Prose, in short, sacrifices wholeness, that is to say, depth and breadth of view, to mere formal consistency. Poetry, at least in its subject-matter, is above formal consistency and above partiality. Through its very license poetry bears the message of what is real and whole. Poetry forever prefers reality to prosaic peace.

So life is a comedy, rich and deep, and it is a poem, realistic and inclusive. It is, finally, a serious duty. To many, stern and oracular in their moral sense, the character of duty will seem not to fit at all well into a life that is always humorous, and that is never real and complete without being also poetic. But it does fit. Duty, they hold, is quite too sober ever to be mingled with humour or comedy, and quite too precise and explicit, too plainly prescribed, and in its spirit, when not in its letter, too legal ever to appeal to a poet or to be in any way associated with what appeals to him. But tell me, is the Puritan's notion of duty an accurate one? Is it the highest notion? Is it even profoundly moral? Has duty no chance at all on any other plan? In a word, are humour and poetry truly fatal to real duty? Why, even such questions must make the stern rigorists among us hope just a little,

though also these good men may still fear, for the relief that the questions seem to promise. Perhaps they mingle their hope with fear, only because, as I feel quite sure, they forget that comedy and poetry always bring more than mere relief. The real comedy and the true poetry of life are altogether too deep to do only that. They do indeed bring relief from the rigour and prosaic consistency of any specific programme or uniform, and so to any man they are always welcome, though he continue to suspect them of being wrong; but they bring also a responsibility that is fuller and larger and harder than the formal precept or prescription. Should the rigorist ever love his enemies? Not if he would be consistent. Should he ever find hope in what he fears? Should he ever laugh at his own manifest smallness? Yet these are real duties; they are great, transcendent duties; and, richly humorous as they are, only a poetic consciousness can ever appreciate them and truly feel their living obligation.

For this, our life of comedy and poetry, which is real only as it is both, no principle can come nearer to the very foundation of duty than just the principle, deeply true: *Whatever is, is right.* Men have laughed and men have wept over this truth. Was ever more perfect mingling of doubt and belief? Was ever greater jest? Or more tragic fact? But truth it is; *the* truth of all duty; and it is life's eternal comedy—the alpha and the omega, too, of life's own poem.

INDEX

A

Abstraction, of science, 58, 107; and duplicity, 61
Agnosticism, 75, 106; special dangers of, 111, 117; dogmatic and instrumental, 120; as call for action, 125; as passion for real life, 128
Analogy, among the sciences, 97; of individual self to environment, 155; of universal to particular, 33, 220
Anaxagoras, 94
Anaximander, 34, 94, 147
Anti-vitalism, 147
Aristotle, 155, 156
Atomism, 97, 102

B

Babylonians, 106
Bacon, 176
Baldwin, 15
Belief, as unquestioning, 8, 194; and doubt, 53, 105, 107, 130, 133, 192, 248
Biology, 88, 90, 104, 110
Boehme, 177
Body, and soul, 227, 237; immortality of, 141, 234
Bradley, 153 n.
Burns, 94

C

Candour, of the English, 270
Carlyle, 126
Catholicism, 175
Causation, 39, 82, 83, 109, 205
Change, and habit, 15; as motive, 17; of purpose, 11
Charron, 177, 180
Chemistry, 34, 36, 88, 90, 91, 110
Christ, 51, 246, 263
Christianity, and immortality, 290; preparation for, 266; different views of history of, 266
Christian Science, 2, 32 n.
Class, the social, 62, 126, 162; relation of, to doubt and belief, 171
Comedy, 275
Companionship, with nature, 21, 71; with man, 24; with God, 26
Contradiction, in ordinary views, 30; in idea of reality, 30; of unity, 33; of space and time, 38; of causation, 39; of knowledge, 41; of morality, 44; of law, 49; as of value in experience, 4, 37, 131; and dualism, 101; as corrective of narrowness, 100, 116, 143; as meaning action, 136; as realizing unity, 137; as securing reality and practicality, 145; as requiring society, 147; as not to be cultivated for its own sake, 151; as related to person and class, 170

Conventionalism, 66, 260
Creationalism, 82, 202
Crusades, 267

D

Death, 141, 151, 239
Deduction, 97
Democritus, 65
Development, special, transferable, 165
Descartes, 6, 172, 196, 251, 254
Dichotomy, 101
Dogmatism, and fear, 9; and belief, 194
Doubt, as widespread, 1, 7; actual, if possible, 6; as essential to consciousness, 9; and habit, 14; as making life real, 18; and feeling of dependence, 21; as seeking company, 21, 255; as mediator between old and new, 25; and atheism, 27; and belief, 55, 105, 130, 133, 192, 248, 273; as investment for gain, 259; and candour, 270
Dualism, 64, 101, 147, 209
Duplicity, of science, 61; of life, 118
Duty, 47, 278

E

Education, and interest, 18 n.
Emerson, 144
Energism, 147
England, peculiar scepticism in, 269
Environment, as source of conduct, 46; social environment and personal individual, 169, 231
Epicureanism, 116, 265
Epistemology, 92
Evil, and good, 45, 133, 150, 276
Evolution, 78, 202, 246
Experience, unity of, 160
Experimentalism, 68

F

Fatalism, 49
Fear, and dogmatism, 9
France, peculiar scepticism in, 271
Freedom, of will, 47; of thought, 211, 227

G

Galilei, 177
Genius, 168, 196, 263
God, Descartes' proof of, 181; fallacy in D.'s proof of, 189; D.'s idea of, 186, 190; sceptic's idea of, 26, 187, 190, 203; death of, 237; birth of, 269

H

Habit, and doubt, 14
Hebrews, 25, 264
Hedonism, 64, 147, 265
Hegel, 20, 147
Heraclitus, 147, 152
Hering, 147
Hero-worship, 243
History, standpoint of, 79; of Christianity, different views of, 266
Hope, even in doubt, 13, 19, 37, 48, 53, 105
Horace, 21
Hypotheses, working, 89, 93, 258

I

Idealism, 65, 147
Illusions, 2, 23 n., 254
Immortality, 141, 234
Impostor, the, 253
Individualism, 72, 116

Individuality, 155, 165, 224
Induction, 72, 97
Industrialism, 222
Infinity, 52, 102, 142
Institutions and institutionalism, 16, 59, 260
Interest theory, in education, 18 n.

J

Jesuits, 172
Jesus, 51, 246, 263
Jews, 25, 264
Jurisprudence, standpoint of, 13, 47

K

Kant, 110, 147
Knowledge, contradictory views of, 41; of law, and freedom, 51, 212; and the unknowable, 106

L

Labour, division of, in special relation of person and class, 163; division of, in experience, 232
Law, standpoint of, 13; courts of, 47; contradiction in idea of, 49; and nature, 51, 218
Lawlessness, 51, 141, 261
Leadership, 168, 196, 263
Leibnitz, 133, 154, 210
Lessing, 19
Louis XIV, 172
Luther, 174

M

Macaulay, 270
Machiavelli, 66, 261, 263
Malebranche, 198
Materialism, 65, 147, 175
Mathematics, 88, 91, 96, 133, 177, 215
Mechanic, the, as social type, 228; peculiar death of, 238
Mechanicalism, 82, 218
Method, Socratic, 71; historical, 95; experimental, 84, 95; mathematical, 96
Miracles, 53, 246
Monism, 147
Montaigne, 172, 176, 184
Münsterberg, 109 n., 112, 119
Mysticism, 176

N

Nast, 97
Nativism, 196
Nature, return to, 22; relation of science to, 23, 56, 74; and God, 26, 203, 271; sympathy of, 23, 203; and law, 51, 220; as mechanical, 217; English and French views of, 271; knowledge of law of, and freedom, 49, 212
Necessity, in conduct, 47; superstition of, 49, 212
Negativity, 3, 20, 37, 83, 85, 94, 101, 125, 133, 147
Newton, 97

O

Oratory of Jesus, 176

P

Paradoxes, in ordinary consciousness, 30; in science, 75, 98; in religion, 103
Parallelism, 204
Paris, 172, 192, 251
Parmenides, 94
Pascal, 180
Person, nature of, 155, 165; relation to reality, 170, 184; relation to doubt and belief, 171; part in society, 169, 231